The Secretary's Fourth Annual Report On Teacher Quality

A Highly Qualified Teacher in Every Classroom

No Child LEFT BEHIND℠

U.S. Department of Education

Office of Postsecondary Education, 2005

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2005

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June 2005

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Dear Colleague,

I am pleased to provide Congress and the American public with *The Secretary's Fourth Annual Report on Teacher Quality* in the United States. Two important laws currently provide the framework for measuring the quality of U.S. teacher preparation: Title II of the *Higher Education Act (HEA)* and the *No Child Left Behind Act of 2001 (NCLB)*. The legislative challenge is clear: by 2006, nearly every major *NCLB* requirement will be in place, including the requirement that all teachers of core academic subjects be highly qualified. As a country, we would not have been able to move forward with this ambitious goal without the bipartisan support in Congress to allocate the resources to put a highly qualified teacher in every classroom, one of President Bush's and my highest priorities.

This report presents the most current national information provided by the 50 states, the District of Columbia, and the outlying areas on the quality of novice teachers entering the education field. Forty-nine states have standards for teachers applying for initial certification. All states and outlying areas but one now have some quality standards for teachers. Progress is also evident in the number of alternative pathways to teaching created by states, school districts, nonprofit groups, and schools of education. Eighty-five percent of states now have these programs.

This year's report highlights the essential principles for building outstanding teacher preparation programs in the 21st century and focuses on the critical teaching skills all teachers must learn. In particular, all teacher preparation programs must provide teachers with solid and current content knowledge and essential skills. These include the abilities to use research-based methods appropriate for their content expertise; to teach diverse learners and to teach in high-need schools; and to use data to make informed instructional decisions. Successful and promising strategies for promoting these skills include making teacher education a university-wide commitment; strengthening, broadening, and integrating field experience throughout the preparation program; strengthening partnerships; and creating quality mentoring and support programs.

Throughout America, teachers, school districts, local governments, states, public and private entities, and institutions of higher education are participating in a wide variety of initiatives that are leading the way to improving traditional and alternative teacher preparation programs and keeping good teachers in the nation's classrooms. Many of these initiatives are identified in this report. However, despite the progress being made, much remains to be done.

continued

To reach our national goal, we must address the inequitable distribution of teachers who are the most qualified and successful. Too often, the least experienced teachers are leading the classrooms of our neediest children. We must also ensure that we prepare teachers to teach subjects where we currently have critical shortages, namely, mathematics and the sciences. We must support newly trained teachers as they enter the profession to help them through the critical first years of their classroom work.

All children deserve highly qualified and effective teachers. Over the last decade, there has been too little improvement in educational achievement, and the achievement gaps between minority students and their non-minority peers remain unacceptably large. We must continue to work together through strong partnerships among states, school districts, local governments, public and private entities, and institutions of higher education to lead major reform efforts.

This year, we will begin to extend the momentum of *NCLB* to the nation's high schools by setting higher standards, using annual assessments, and improving teacher quality to increase student achievement. As we undertake this next stage in education reform, let us commit ourselves anew to our promise that our children will be educated and not just required to go to school. Let us ensure that no child is left behind.

Sincerely,

/s/

Margaret Spellings
Secretary
U.S. Department of Education

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Each year, individuals, organizations, institutions of higher education and state departments of education work with the Department of Education to report on the outcomes of teacher preparation as required by Title II of the *Higher Education Act* (HEA). The Department appreciates the efforts of all the individuals who work throughout the year to collect information about teacher quality.

Within the Department of Education, Helen Soulé in the Office of Postsecondary Education directed the development of the report, with the support of Dottie Kingsley, Ok-Choon Park and David Chin. The report was prepared in coordination with the Office of the Secretary, the Office of the Deputy Secretary, the Office of the Under Secretary, the Office of Innovation and Improvement, the Institute of Education Sciences and the Office of Elementary and Secondary Education. While many Department of Education staff provided examples of best practices and reviewed this report, the authors would like to give special thanks to Joseph Conaty, René Islas, Michael Petrilli, Carolyn Snowbarger, Robert Stonehill and Elizabeth Warner for their valuable feedback.

On behalf of the Department of Education, Westat, under the leadership of Allison Henderson, manages the HEA Title II reporting system and the production of the report. Westat research staff Tamara Morse Azar, Elizabeth Buckland and Darcy Pietryka provided the data analyses, exhibits, graphs and narrative examples from the reporting system. Meredith Ludwig of the American Institutes for Research supported Westat in developing the report.

"The **No Child Left Behind Act** *said that every child has the right to a quality education and the chance to succeed in the 21st century. It said that we should measure our children's progress from year to year, so we can discover where they need help before it is too late. It said that schools should be accountable for making sure every child reads and does math on grade level. And when schools fall short of their responsibilities, it said parents must be given information and options."*

—Secretary Margaret Spellings

Since the enactment of *No Child Left Behind* and the Title II accountability provisions of the Higher Education Act (HEA), the Department has been collecting and analyzing data on the preparation of novice teachers. This report summarizes the 2004 Title II accountability data reported by state officials. The data show a picture of mixed results:

- The number of teachers receiving initial certification has remained fairly steady over the last four years, at about 300,000 annually;
- Alternative routes to certification continue to grow and resulted in 35,000 graduates; traditional programs reported 170,000 graduates;
- There appears to be no overall national teacher shortage; however, teacher distribution shortfalls persist in certain subject areas and grade levels, as well as rural, urban, and outlying area locations;
- Five states (California, Florida, New Jersey, New York and Texas) produce approximately 38 percent of the nation's teachers. In 12 states, more than 40 percent of their teachers come from out-of-state preparation programs;
- All states and outlying areas except the Virgin Islands have some quality standards that apply to all teaching fields and grade levels;
- Thirty-nine states require a content-specific bachelor's degree for at least one of their initial certificates; 15 states still have no content area bachelor's degree requirements for any of their initial certificates or licenses;
- Overall, 3.5 percent of teachers are on waivers, with more teachers on waivers in high-poverty districts (5.2 percent) than in all other school districts (3.1 percent);
- Despite increased attention to the high pass rates on teacher assessments (typically above 95 percent) and the low passing scores on these assessments, states have not raised the minimum passing score; and
- The number of teacher education programs designated as low performing has decreased to 20, down from 25 in 2003.

"… [T]he Department has been working with states to give them tools to help improve the quality of their teaching so that, ultimately, students benefit."

—Secretary Margaret Spellings

The federal government plays a key role in promoting teacher quality by providing support to states, school districts, institutions of higher education and others to improve teacher quality. The president's proposed budget for fiscal year 2006 continues the federal commitment to teacher quality by proposing:

- $2.92 billion for Improving Teacher Quality State Grants to help states ensure that all teachers of core academic subjects are highly qualified, as required by NCLB.
- $500 million for a new Teacher Incentive Fund, which would provide formula grants to reward effective teachers and create incentives to attract qualified teachers to high-need schools, as well as competitive grants to design and implement performance-based compensation systems that change the way school districts pay teachers.
- Up to $17,500 in student loan forgiveness for highly qualified math, science and special education teachers serving low-income communities.
- $164 million for Research, Development and Dissemination to maintain support for ongoing initiatives critical to the success of the NCLB Act, including research on reading comprehension, mathematics and science education, teacher quality and cognition and learning in the classroom, as well as a new program of field-initiated evaluations of promising education products and approaches to find out what works in the classroom.
- $14.8 million to support the Troops-to-Teachers program. The Troops-to-Teachers program administered by the Department of Defense helps train retiring military personnel to teach in high-poverty school districts.
- $44.9 million for Transition to Teaching grants to recruit and retain highly qualified mid-career professionals. This program supports alternative routes to teacher certification and other approaches to enable mid-career professionals and recent college graduates to transition to careers in teaching. These grants train, place and support teachers in high-need schools.

During the next four years, America will realize many of the promises of NCLB. More children than ever before will be taught by a teacher who meets the federal standards as highly qualified. While much of the work of NCLB has focused on our elementary and middle schools, now, America must do more to prepare high school students for graduation, especially those most at risk of dropping out. Higher education is key to success in the 21st century. The international economy of the 21st century is competitive and, as our children become young adults, they must have the skills developed through a strong education to keep our nation competitive.

CHAPTER 1

Introduction

This fall, our nation's 48 million children, full of hope and enthusiasm about what they will learn and the new accomplishments they will achieve, will enter the classrooms of more than 91,000 schools. The *No Child Left Behind Act* (NCLB) and the bipartisan support it has received committed this nation to a course of action that ensures all of our children, regardless of race, income or native language, have the opportunity to succeed in life. Teachers are at the forefront of this bold new vision. More than two million teachers throughout the United States enter their classrooms committed to inspiring and challenging America's students. Daily, these dedicated individuals lead our children into the worlds of learning to prepare them to be successful members of the workforce and contributing members of our society. With our future in their hands, our students deserve excellence in the classroom, and our teachers deserve no less in their preparation for the classroom. Therefore, the preparation and licensure of teachers is critically important to our national goal of creating and sustaining a world class system of education.

This report is about teachers. It is about how well our children's teachers are prepared for the classroom, what kinds of licenses are granted for teaching and how states are overseeing teacher preparation programs and teacher licensing. It is also about accountability. Since the enactment of NCLB and the Title II accountability provisions of the *Higher Education Act* (HEA), the Department has been collecting and analyzing data on the preparation of novice teachers.

However, this report is not just about numbers, it is also about what states and institutions can do to guarantee our teachers are world class. This year's report highlights innovative projects and reforms in teacher preparation, recruitment and retention, as well as unique solutions to the teacher shortages in critical subject areas and geographical areas. The federal government plays a key role in promoting teacher quality by providing support to states, school districts, institutions of higher education and others to improve teacher quality and by investing in education research. Information about the federal commitment and proposed funding of critical initiatives is included in this report.

Much has changed in the four years since the Department of Education (the Department) began collecting national information on teacher quality, due in large part to the passage of the 1998 reauthorization of HEA and the landmark 2001 NCLB. Together, these laws provide a national blueprint on how to ensure that there is a highly qualified teacher in every classroom by the close of the 2005-06 school year.

Both HEA and NCLB are stimulating change in the methods and the manner in which teachers are prepared. Common strands weaving throughout these two groundbreaking laws include:

- Promoting stronger standards and accountability in teacher preparation, teacher quality and teacher certification. HEA Title II legislation authorized the collection of objective data from every state and outlying area regarding teacher preparation and certification (see sidebar note on HEA Title II reporting). The result is the first national systematic and comprehensive data resource about teacher preparation. By establishing a comprehensive definition of a highly qualified teacher, NCLB changed the language we use today to talk about teacher qualifications.
- Supporting innovative models for multiple pathways into teaching, for alternative routes to teacher certification and for teacher development, both in-service and preservice. Funding in formula and discretionary grant programs supports innovation through partnerships between institutions of higher education and high-need schools and districts. These grant initiatives include the Mathematics and Science Partnership program and the Transition to Teaching program, as well as the State Agency for Higher Education (SAHE) grants that link higher education resources with high-need school districts to address the professional development needs of their teaching faculty.
- Conducting research on effective models of teacher preparation. To evaluate teacher quality initiatives, NCLB has allotted resources for scientifically designed studies of delivery models and pathways to teacher preparation for novice teachers. The National Center for Education Evaluation (NCEE) within the Department's Institute of Education Sciences (IES) has begun a number of studies that will provide vital information about effective teacher preparation.

HEA Title II Reporting

Three stages of gathering and reporting data were specified by the 1998 amendments to the HEA, which established the Title II accountability provisions. Once these steps are completed, the secretary of education prepares the annual report for Congress.

1. Institutions of higher education report data to states, including pass rates on state certification and licensure examinations of their students completing teacher preparation programs.
2. Using these reports, as well as state-maintained data, states report to the Department of Education state certification and licensure requirements for completers of traditional and alternative teacher preparation programs, statewide pass rates on the most recent state assessments of graduates of teacher preparation programs, as well as pass rates disaggregated by institution and quartile rankings of their institutions based on their pass rates, the number of teachers on waivers or emergency and temporary permits, information on teacher standards and their alignment with student standards and criteria for identifying low-performing schools of education.
3. The Department of Education verifies and analyzes the data. Complete reports from each state are published on the Web at http://www.title2.org/.

Helping individuals who choose to become teachers realize their dreams requires a

partnership among institutions of higher education, private and nonprofit entities, school districts, state departments of education and the federal government. These partnerships succeed when each partner commits to fulfill at least three important responsibilities:

- They must set and maintain high standards;
- Track and evaluate outcomes; and
- Support flexible pathways to the teacher workforce.

There are no shortcuts to achieving the teacher quality goals set on behalf of students in our nation's schools.

In this fourth report, three chapters link findings from the HEA Title II reporting system with the promising practices of a variety of projects throughout the country. Combined with the data from states, this information provides a national report card on teacher quality.

Chapter 2 discusses teacher preparation programs offering both traditional and alternative pathways to the teaching field and the new approaches developed and implemented by innovative teacher preparation programs. Increased innovation by new providers of teacher preparation programs, driven in part by critical shortages, is changing the traditional system. Further, NCLB provisions are stimulating a cultural change, a shift toward a culture of achievement. Teacher preparation programs are beginning to be measured by the ability of their graduates to help students achieve.

While pathways to teaching may differ, there is broad consensus among educators and policymakers about the essential knowledge and skills required for effective teaching. Teachers must be grounded in the content of the subjects they teach, use proven research-based strategies to provide instruction, interpret data to make instructional decisions, adapt instruction for diverse learners, know how to teach in high-need schools and use 21st-century skills. Successful and promising strategies for ensuring that preparation programs teach these skills include developing a university-wide commitment to teacher education; strengthening, broadening and integrating field experience throughout the preparation program; strengthening partnerships; and creating quality mentoring and support programs.

Chapter 3 presents a progress report on state policies regarding certification standards, teacher assessments and multiple pathways to the teaching profession. This chapter provides data on key measures of progress, including pass rates on the most recent state assessments of graduates of teacher preparation programs, the number of teachers certified, teachers who have a waiver from full state certification, states' requirements for certification, states' alignment of student and teacher standards and teacher preparation programs determined by states to be low performing. The data show that while challenges remain, states have made progress in strengthening teacher standards and increasing flexibility in the pathways to teaching.

Chapter 4 provides an update on the federal commitment to teacher quality. Assistance and considerable resources have been dedicated in three areas:

- Providing clear guidance and support to states and institutions in the administration of the HEA Title II and NCLB laws affecting the preparation and certification of teachers;
- Providing grants and technical assistance to help institutions and states train, recruit and retain effective teachers; and

- Conducting ground-breaking research that will inform the teacher quality goals of standards, outcomes and flexibility, innovative practices and professional development for teachers.

The Secretary's Fourth Annual Report on Teacher Quality concludes with a plan of action and the Department's next steps for ensuring that there is a quality teacher in every classroom. There is no question that teaching is a tough job, but the rewards are great. America's demand for quality education must be accompanied by a strong commitment to support its teachers. Our future depends on it.

CHAPTER 2

Teacher Preparation

"Teachers are the lifeblood of our nation's classrooms. These committed and dedicated professionals are helping to shape our children's future and our future. For that we owe them our highest regard, our highest respect."

—First Lady Laura Bush

Ensuring that America's teachers are of the highest quality is an important national priority because they hold the key to student success. Effective teachers can increase student achievement and scores on standardized tests. Simply put, good teachers matter, and multiple research studies confirm that they matter a lot (Allen, 2003; Haycock, 1998; Sanders, 2004).

Because effective teachers are critical for improving student achievement and success, states, school districts, public and private entities, postsecondary institutions and the federal government expend considerable effort and resources to promote and expand the knowledge, skills and abilities of both novice[1] and experienced teachers. Along with this national commitment has come an increased focus on accountability and results. NCLB requires that all teachers of core academic subjects be highly qualified by the end of the 2005-06 school year. Under the law, a highly qualified teacher is defined as one who holds a bachelor's degree, has full state certification and has demonstrated subject area competence in each subject taught. NCLB provides a variety of ways for teachers to demonstrate content mastery (see sidebar, next page). While the federal legislation is instrumental in shaping national policy on teacher quality, it is the teacher preparation programs that are molding America's future teachers. Quality teacher preparation programs play a critical role in preparing effective teachers.

Building Outstanding Teacher Preparation Programs

Historically, teacher candidates have been young undergraduate students. Today, many teacher candidates enter teacher training from another career or after completing a college degree in a field other than education. No matter what their age or previous experience, all teachers begin their career path by enrolling in a teacher preparation program. Teacher preparation programs fall into two broad

1 Throughout this report, the terms "novice," "new" and "beginning" are used interchangeably to describe teachers who are in the first two to three years of their careers.

How Teachers Can Demonstrate Subject Area Competency Under NCLB

New elementary school teachers may demonstrate competency by passing a state content assessment. New secondary school teachers may demonstrate competency in the subjects they teach by passing a state content assessment, or by holding an undergraduate major, or by completing course work equivalent to an undergraduate major, or by holding a graduate degree in the subject(s) taught. Veteran teachers at both levels may demonstrate competency by going through their state's High Objective Uniform State Standard of Evaluation (HOUSSE) procedure. (A summary of HOUSSE procedures for all states, and comparisons of the procedures across states, can be found at http://www.ecs.org/ecsmain.asp? page=/html/educationissues/teachingquality/housse/houssedb_intro.asp.

categories: traditional route and alternative route. Traditional programs are generally offered through a college of education as four-year undergraduate degrees. A traditional teacher preparation program curriculum typically combines subject matter instruction, pedagogy classes and field experience. Alternative programs, which now account for close to 20 percent of new teacher graduates, tend to enroll individuals who have subject mastery but lack pedagogical skills. Those entering through an alternative route to certification often teach while completing their pedagogy classes.

The national mandate to improve student achievement and to hold schools and teachers accountable for results is causing significant changes that have profound implications for the landscape of teacher preparation. To meet federal and state accountability requirements and to achieve their goal of producing successful teachers who improve the achievement of all students, teacher preparation programs today must ensure that all new teachers are not only highly qualified by the NCLB definition but also possess new areas of knowledge and expertise previously not required of teachers. When teachers enter the classroom today, they must be able to:

- Demonstrate subject matter expertise as defined by NCLB and use proven research-based strategies appropriate to their content area expertise;
- Interpret data, including assessment data, to make instructional decisions;
- Adapt and individualize instruction for diverse learners;
- Be prepared to teach in high-need schools; and
- Use 21st-century skills.

Each pathway to teaching may address these areas in a variety of approaches, but each must be addressed. Individual programs may reflect state priorities and standards, the perspectives of the institutions where teachers are prepared, or the specific talents and subject-matter expertise of the population the program is preparing. However within the variability of individual programs, research and practice confirm that sound teacher preparation programs that incorporate the following strategies prepare teacheres who enter the classroom with the skills needed to succeed:

- Make teacher education a university-wide commitment;
- Strengthen, broaden and integrate field experience throughout the preparation program;
- Strengthen partnerships between stakeholders both within the postsecondary institution (for example, colleges of education and colleges of arts and sciences) and among external partners, such as schools, local governments and private and nonprofit agencies;
- Create and maintain quality mentoring and support programs to sustain novice teachers during their tenuous first three years of teaching; and
- Measure successful teacher preparation by assessing student performance.

This chapter presents an overview of the multiple pathways to the teaching profession, discusses each of the skills that highly qualified teachers must possess and expands upon the strategies for ensuring that teachers enter the classroom with the skills they need to succeed.

Multiple Pathways to the Teaching Profession

Prospective teachers now have several avenues available to them to pursue their careers. Regardless of whether an alternative or more traditional route to teacher preparation is chosen, it is expected that prospective teachers will gain the knowledge, skills and abilities needed to effectively teach our nation's diverse student population.

Traditional Teacher Preparation Programs

Most commonly, teachers complete a program at a four-year college or university. According to the National Association of State Directors of Teacher Education and Certification (2004), there are 1,323 state-approved teacher preparation programs across the country.[2] Elementary teachers tend to complete all of their training requirements through their colleges' schools of education, while secondary teacher preparation programs tend to require a content area major through a college of arts and science plus additional pedagogical training through a school of education. Teachers in training typically go through a period of student teaching, which is generally unpaid, and often are required to take a battery of assessments before they receive their degrees. According to state-reported data in the HEA Title II system, 170,235 prospective teachers completed a traditional teacher preparation program in 2002-03.[3]

2 Through the HEA Title II data collection system, states reported 1,102 institutions with approved teacher preparation programs. Institutions with less than 10 program completers are not required to report pass rates and, therefore, are excluded from these estimates. Institutions may have multiple teacher preparation programs housed within their colleges of education. Under HEA Title II, institutions report at the institutional, not program, level. The National Association of State Directors of Teacher Education and Certification reports the number of programs within an institution.

3 The estimate of 170,235 includes only states that reported assessment data in the HEA Title II data collection system. As non-testing states, Idaho, Iowa, Montana, Nebraska, North Dakota, Washington and Wisconsin did not report the number of program completers. Therefore, this estimate undercounts the number of traditional route completers. As discussed in footnote 2, this figure also excludes prospective teachers from teacher preparation programs with less than 10 program completers.

However, not all teachers enter their profession through this traditional process. Over the past two decades, alternative pathways (often called alternative routes) to teacher certification have sprung up across the nation. These pathways help to expand the pool of teachers by targeting individuals interested in becoming educators who already have a solid content-knowledge background but no teacher training.

Alternative Routes to Teacher Certification Programs

Alternative routes to teacher certification come in many shapes and sizes—some differ from traditional programs only in the timing or scheduling of course work, while others, like the New Teacher Project (a national nonprofit organization that works with local education organizations to increase and maximize the effectiveness of public school teachers) use a completely different model. In November 2004, the Department's Office of Innovation and Improvement published *Alternative Routes to Teacher Certification*. This publication highlights six programs from across the country that typify successful alternative teacher preparation programs and summarizes the prevailing research on components of effective alternative routes to teacher certification:

> Reviews of research generally conclude that the most successful alternative programs tend to have high entrance standards; afford extensive mentoring and supervision; give extensive pedagogical training in instruction, management, curriculum and working with diverse students; provide plenty of practice in lesson planning and teaching prior to a candidate taking on full responsibility as a teacher; maintain high exit standards and develop strong partnerships.

Prospective teachers going through alternative routes to certification tend to hold a bachelor's degree and usually have a mastery of the subject matter they will be teaching. However, they may lack pedagogical skills in areas such as classroom management and differentiated instruction. In contrast to the more traditional teacher preparation programs, which have tended to be designed for young undergraduate students, alternative routes to teacher certification are designed for individuals like mid-career professionals, recent liberal arts graduates and retired military personnel. To be considered fully certified to teach while participating in an alternative route program, participants must: (1) receive high-quality professional development that is sustained, intensive, and classroom-focused in order to have a positive and lasting impact on classroom instruction, before and while teaching; and (2) participate in a program of intensive supervision that consists of structured guidance and regular ongoing support for teachers or a teacher mentoring program. Upon completing all the requirements of the alternative route to teacher certification, participants generally are granted full state certification.

Alternative pathways have been developed through state initiatives, private entities and within the schools, colleges and departments of education in public and private higher education institutions. Estimates of the number of individuals completing alternative routes to teacher certification vary from approximately 25,000 to 35,000 due to definitional differences[4] (U.S. Department of Education, 2004; National Center for Education Information, 2004). Detailed information on the characteristics of alternative routes to teacher certification is provided in Chapter 3.

4 Estimates vary among data sources primarily due to how organizations define what constitutes an alternative route.

Historically, alternative routes to teacher certification were developed to meet an urgent need for a teacher in the classroom. Often, the individuals who completed these programs did not meet all state requirements for teaching and were granted temporary or emergency teacher licenses. While this does still occur, research now shows that well-constructed alternative routes to teacher certification are effective methods for fully preparing nontraditional teacher candidates to enter our nation's classrooms while meeting state certification and licensure requirements. Department of Education regulations determine when participants in alternative routes to teacher certification may be considered fully certified for the purposes of the highly qualified teacher requirements.

Today, many alternative routes to teacher certification are designed to recruit teachers into shortage areas such as math and science and special education or to increase diversity within the educational workforce, including minority and male teachers. One program described in the Department's *Alternative Routes to Teacher Certification* publication is the Northeastern California Partnership for Special Education, which offers an alternative route to teacher certification in the form of an internship in special education. Its mission is to "improve the quality of rural special education services to pupils and their families." The Partnership comprises California State University, Chico (CSUC), 57 education agencies (including school districts, individual schools and counties), the California Commission on Teacher Credentialing and the federal government. The program is rigorous and specifically tailored to rural special education teaching. In its recruiting, the program targets underrepresented groups in special education, especially people with disabilities and men.

Department of Education Regulations Regarding Alternative Route Programs

Teachers who are participating in alternative route programs to teacher certification may be considered to meet the certification requirements of the definition of a highly qualified teacher (and not be counted as on a waiver) if they are permitted by the state to assume functions as regular classroom teachers, but only for a specified period of time not to exceed three years, and demonstrate satisfactory progress toward full certification in their programs as prescribed by the state. Their alternative route program must provide high-quality professional development that is sustained, intensive and classroom-focused in order to have a positive and lasting impact on classroom instruction, before and while teaching. Teachers in such a program must also participate in a program of intensive supervision that consists of structured guidance and regular ongoing support for teachers or a teacher mentoring program(Regulations for Title I, Part A, of the *Elementary and Secondary Education Act,* 34 CFR 200.56).

Northeastern California Partnership for Special Education, Chico, California

The program begins with a preservice orientation on the CSUC campus. Program participants or 'interns' then begin teaching full time, while working toward a full credential by way of a highly structured, organized, sequential learning experience. It typically takes two years to complete the program, including summer school on campus.

The program has an emphasis on attracting homegrown talent. In its recruitment efforts, the program deliberately targets groups that are underrepresented nationally as special education teachers (especially people with disabilities and men). The program also actively recruits ethnically diverse candidates.

Many candidates in this program are career changers—notably from the military and the dot-com industry—or people reentering the work force. The average age is 40.

An excerpt from *Alternative Routes to Teacher Certification*

Highly Qualified Teacher Knowledge and Skills

Subject Matter Expertise

Both NCLB and HEA Title II have turned the national spotlight on the importance of teachers' knowledge of subject matter. Yet, despite growing attention to teacher knowledge and the implementation of systems of standards and tests that describe and measure expectations, recent studies released through the National Center for Education Statistics (NCES) show that students at various educational levels in the United States continue to lag behind those in other countries and behind expectations here at home in mathematics and science literacy, in problem solving and in reading achievement (Lemke et al., 2004).

Education research shows that subject matter mastery is essential for effective teaching (Allen, 2003; Sanders, 2004; Walsh, 2004). Multiple studies have shown a connection between teachers' subject matter preparation and higher student achievement, as well as better teacher performance (Center for the Study of Teaching and Policy, 2001). In particular, research studies on mathematics confirm the relationship between content knowledge of teachers and student achievement (Allen, 2003).

The research showing the importance of teacher mastery of subject matter combined with the latest data on lagging student achievement has important implications for teacher preparation programs—university-based as well as those sponsored by private entities, school districts and states. Meeting the nation's expectations for teachers requires that systems preparing new teachers focus on subject matter mastery.

Using Research-Based Teaching Strategies

The Elementary and Secondary Education Act (ESEA) calls for the use of "effective, scientifically based instructional strategies" (ESEA Section 1001(9) 20 USC 6301). This means the "application of rigorous, systematic and objective procedures to obtain reliable and valid knowledge relevant to education activities and programs" (ESEA Section 9101 (37)(A) 20 USC 7801). A body of educational

empirical evidence has grown from the use of scientifically based research from various fields, especially from research conducted in educational settings. The field of education now includes interventions that have been shown to improve student achievement and are supported by evidence.

A critical skill that teacher preparation programs must address is learning to use research-based teaching interventions effectively. Research-based education means using information about what works (empirical evidence) in making classroom decisions about how to deliver instruction to students. For example, research shows that to learn to read children must be taught phonemic awareness, phonics, fluency, vocabulary and comprehension. However, not all reading teachers currently use this information. Teacher preparation programs have a responsibility to ensure their students are skilled in applying the latest proven techniques for instruction in their subject matter area.

The What Works Clearinghouse (WWC), established in 2002 by the Department of Education's IES (http://www.ed.gov/about/offices/list/ies/index.html), aims to provide a central source of scientific evidence on what works in education. As part of the IES plan to help educators and education policymakers incorporate scientifically based research into their educational decisions, the WWC can evaluate the strength of the evidence of effectiveness of various educational interventions (http://whatworks.ed.gov/) and can help educators, school districts and others identify those programs, products and practices that have demonstrated results. While the WWC is still a work in progress, the following example demonstrates its potential. The WWC has validated the effectiveness of five studies for middle school mathematics education (after reviewing 77 related studies). The five studies include three technology-aided learning programs that integrate mathematics curricula with learning and instructional methods and strategies. This is achieved using the capability of computer technology. The other two studies deal with specific approaches and methods for mathematics education, such as a problem-centered curriculum design, topic-based organization and sequence of the content, distributions of instruction, practice and assessment of related topics over time rather than grouping concepts in chapters or units.

Interpreting Data to Make Classroom Decisions

Today's teachers need access to a wide array of data about their students, as well as direct access to digital resources. Teachers must use multiple types of data that range from attendance, discipline and scheduling records to formative and summative assessments. To positively influence instruction, teachers need access to data on a "real-time" basis.

In order to turn data into useful and meaningful information, teachers need the skills to organize, describe and interpret data. Teachers today need the knowledge to manipulate and organize the large amounts of student data available, as well as exposure to concrete and data analysis techniques that are easy to use. Further, teachers need experience with practical techniques to effectively organize data in meaningful ways that will provide improved insight into student performance and that is translatable into an improved educational experience for students (Snodgrass, 2004).

Research shows that teachers who use student test performance to guide and improve their teaching are more effective than teachers who do not use such information. Effective teaching requires monitoring student progress through frequent assessment, identifying student difficulties and learning needs for the targeted content, and then differentiating the instructional approach and methods to meet individual student learning needs.

Regular formal student assessments mainly provide the data that schools, districts and states need to mark progress and highlight weaknesses in core academic subjects. Also, screening assessments are given to all children at the beginning of the class or school year. The purpose is to identify children who may have difficulties in a subject area.

Diagnostic assessments during instruction provide teachers with specific information to determine which students are learning, which students have difficulties, and the source of those issues and the students' support needs. To properly plan and conduct diagnostic assessments, teachers should have the knowledge and skills to select and develop appropriate assessment methods and procedures for the given students, subject content or tasks and instructional situations. Also, teachers need the skills to analyze and interpret assessment results to use in individually tailored teaching.

One example of a program helping to prepare novice teachers to use assessments is the Learning Assessment Model Project (LAMP) at Ball State University in Indiana. LAMP (http://www.bsu.edu/tcapps/uas/lamp) is a rubrics-driven method designed to facilitate and evaluate a teacher candidate's ability to align instruction and assessment with standards and best practices, to demonstrate their students' learning and to provide evidence of their own understanding of how the assessment of their students' learning informs their instruction. Teacher candidates use this method during their student teaching experience.

LAMP requires the development of a student project that reflects the academic standards of the instructional unit in which the teacher candidate is involved. The teacher candidate must design a rubric to assess the classroom students' projects. Although it is important to address the process of how the project was completed and the quality of the work, the rubric must assign the most weight to indicators associated with the academic standards. The ultimate goal of LAMP is the teacher candidates' demonstration of their understanding of their students' learning and how that relates to their own teaching. A key tool in this understanding is the display of students' performance through graphs reflecting the assessments in the pretest, project and posttest. The teacher candidates interpret the graphs in terms of whole-class and individual student performance.

"Whenever a teacher reaches out to an individual or small group to vary his or her teaching in order to create the best learning experience possible, that teacher is differentiating instruction."

—Tomlinson, 2000

Adapting and Individualizing Instruction for Diverse Learners

All teacher candidates, not just those teachers working with special populations, should take

course work in varied instructional strategies and learner characteristics. Similarly, differentiated instruction has already become a focus area in classroom teaching and is formalized within many core instructional programs. Students with different characteristics may need different instructional methods and strategies. America is a nation rich in diversity, and this is exemplified in children. Data from NCES (U.S. Department of Education, 2003a and 2003b) show that nearly 40 percent of children are in minority groups, nearly the same proportion (more than 36 percent) qualify for reduced-price or free lunches and more than 13 percent receive special education services through Individualized Education Programs (IEPs) (Snyder, 2004). The data also show that more than 1 in 10 receive services to learn English. Given the diversity of America's students, along with their individual needs and learning styles, teachers must be able to tailor individualized instructions based on proven techniques and sound data.

Numerous studies have been conducted to investigate what kinds of instructional methods and strategies should be provided to what kinds of students under what kinds of conditions. However, it is practically impossible to develop menu-like prescriptions for every situation. Today's teacher preparation programs must train their graduates to assess student learning styles and to make sound decisions, choosing from various instructional approaches and methods. Differentiated instruction requires providing tailored instruction to specific learning needs of individual students based on the diagnostic assessment. Teachers need to first learn the foundational knowledge of important student characteristics that influence learning and effective instructional methods and strategies. Then, they need to develop expertise to select best instructional methods and strategies for the given context through practice.

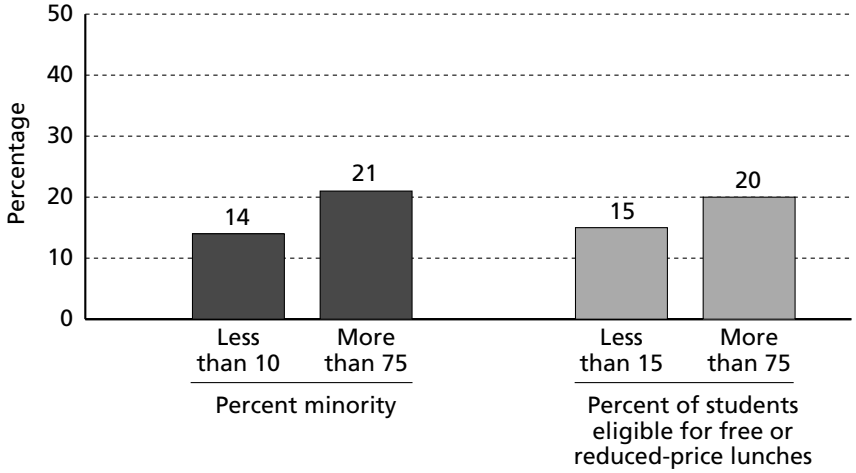
The University of Kansas Center for Research on Learning developed the Strategic Instruction Model to provide to teachers the skills to deliver differentiated curriculum. The center has developed two types of interventions for teachers to use when there is a gap between what students are expected to know and what they are able to express.

- *Teacher-focused interventions* are directed at how teachers think about, adapt and present their critical content in "learner-friendly" fashion. Content Enhancement Routines are sets of inclusive teaching practices that help teachers carefully organize and present critical information in such a way that students identify, organize, comprehend and recall it.
- *Student-focused interventions* are designed to provide the skills and strategies students need to learn content. The Learning Strategies Curriculum encompasses strategies for acquiring information from the printed word, strategies for organizing and memorizing information, strategies for solving math problems and strategies for expressing information in writing (including on tests). For more information, see the University of Kansas Center for Research on Learning Web site at http://www.kucrl.org.

Teaching in High-Need Schools

Nearly one in six teachers (16 percent) will be a novice as he or she enters the classroom in the fall. However, as Figure 1 shows, those students in schools with more than 75 percent minority student populations are more likely to have a beginning teacher (U.S. Department of Education, 2003a). Given that many teachers begin their careers in high-need schools, it

Figure 1. **Percentage distribution of full-time public school teachers with three or fewer years of teaching experience, by percentage of minority and economically disadvantaged students: 1999-2000**



SOURCE: U.S. Department of Education, National Center for Education Statistics. 2003. *The condition of education 2003* (NCES 2003–067). Washington, D.C.

is critical that teacher preparation programs address this reality. Teachers in high-need schools must have an understanding of the needs of diverse student populations and have the skills to develop a set of culturally relevant teaching strategies to address these needs, such as building on the previous experiences of the students. These teachers must also be able to develop a collaborative relationship with colleagues, families and community members in order to reach the shared goal of increased student achievement.

One example of a teacher preparation program that is focusing on helping teachers prepare to work in high-need schools is the University of Tennessee's Urban Specialist Certificate Program. The Urban Specialist Program recruits current urban educators who want to become part of a cohort of teachers who support other teachers new to urban schools. The program includes 18 hours of university credit completed over a two-year period that focus on research-based curricula and instructional approaches to teaching and learning in urban settings, working with diverse student populations and the socio-cultural context of urban schooling. Program participants are involved in Summer Institutes, as well as seminars throughout the program, that result in a total of 100 contact hours per year. Additionally, technology is integrated across all courses. Educators who complete the Urban Specialist Certificate assume a leadership role in inducting beginning teachers and mentoring those having difficulty teaching in urban settings. They also lead professional development activities for beginning teachers and teachers new to urban schools.

Using 21st-century Skills

As noted by the Partnership for 21st-Century Skills (an advocacy organization that focuses on transforming teaching and learning in the 21st-century):

> In the midst of accelerating technological change, rapidly accumulating information, increasing global competition and rising workforce requirements, it has become clear that mastery of the '3Rs'—reading, writing and arithmetic—is not enough for students' success in the 21st century.
>
> —Karen Bruett

The world around us today makes it clear that technology is having an increasingly larger impact on education. NCLB calls for every student to be technologically literate by the eighth grade. Ninety-nine percent of all schools already have access to the Internet. As noted in *A National Education Technology Plan,* released by the Department of Education in January 2005, "Teachers are transforming what can be done in schools by using technology to access primary sources, exposing students to a variety of perspectives and enhancing students' overall learning experience through multimedia, simulations and interactive software. At the same time, teachers, principals and administrators are able to better track student achievement and adjust instruction more effectively to individual needs."

However, teachers cannot just apply new technology to existing ways of teaching. To best use the available technology, today's teachers need adequate training and a thorough understanding of how technology can be used to enrich the learning experience. Step 3 of the Department's *A National Education Technology Plan* focuses on actions that will improve teacher training in technology. Teachers must be able to access relevant research, examples and innovations, as well as staff development to learn best practices. The Department and the National Science Foundation are currently funding research studies to evaluate the effective use of technology for teaching and learning.

Step 3 of A National Education Technology Plan

Recommendations for states, districts and individual schools include:

- Improve the preparation of new teachers in the use of technology.
- Ensure that every teacher has the opportunity to take online learning courses.
- Improve the quality and consistency of teacher education through measurement, accountability and increased technology resources.
- Ensure that every teacher knows how to use data to personalize instruction. This is marked by the ability to interpret data to understand student progress and challenges, to drive daily decisions and to design instructional interventions to customize instruction for every student's unique needs.

In addition to understanding what skills a highly qualified teacher must have, teacher preparation programs must also know the most effective strategies for developing these skills in their teacher candidates. The following sections present effective and promising strategies for improving teacher preparation programs.

Strategies for Improving Teacher Preparation Programs

Make Teacher Education a University-Wide Commitment

This chapter began by noting that teachers shape our children's future and our future. This critical national role mandates that America's teacher preparation institutions fully commit to preparing the best teachers possible. This commitment requires support that begins at the highest level, with university presidents and boards of trustees, and then permeates throughout the institutions. A number of literature reviews confirm the importance of an all-university approach to preparing teachers (American Institutes for Research [AIR], 2001; Sanders, 2004; SRI International, 2000).

A university-wide commitment ensures that adequate resources are made available to maintain faculty skills at the highest level and to enable active participation in field experiences that reach into the surrounding communities. Institutions must reach out to align teacher preparation programs with student standards set by states and school districts, as well as with federal requirements for teachers and students. Educating teachers about the federal requirements and accountability provisions in NCLB, along with state and local requirements, empowers new teachers to be strong advocates for progress in student achievement. The NCLB provides a blueprint for improvement and accountability based on research and results. The research data show that good teachers matter and positively impact student achievement. University-wide support for teacher preparation programs can lead the way in championing these changes.

A university-wide commitment is also needed to facilitate the kind of collaboration between education and arts and sciences faculties that is necessary to train teacher candidates in 21st-century teaching skills. In order to foster this important commitment, teacher education programs at institutions of higher education need to promote collaboration among their faculty and the faculties of local education agencies. When faculty work across disciplines and spend more time in the most challenging schools where their students are observing, student teaching and becoming employed, they have the information and experience to accomplish these goals. In fact, institutions, such as Our Lady of the Lake University, Jackson State University and the University of Miami, have forged particularly successful collaborations between arts and sciences and education faculties.

In Texas, Project CoMET (Collaboration Mentoring and Technology Program), led by Our Lady of the Lake University, enabled three higher education institutions to successfully align the content courses for preservice teachers with the Texas Essential Knowledge and Skills standards (TEKS). This alignment process involved examination of existing courses in core subject areas, bringing the TEKS standards into lesson plans and skills into classroom assignments (http://education.ollusa.edu/comet/).

At Jackson State University in Mississippi, the university president reinforced the dean of education's goal of bringing rigor to the education requirements through alignment with nationally recognized standards. The university faculty pointed to the sizable number of core courses taken by undergraduates pursuing teacher education careers and emphasized the whole university responsibility for succeeding on state-required assessments (http://ccaix.jsums.edu/~quality/Teacherquality3/webpages/overallframe2.htm).

University of Miami

University of Miami education faculty work as professors-in-residence in partner schools called Professional Development Schools (PDS). The grant is used to pay a portion of the faculty's salary, freeing participants from one course in their teaching loads and enabling them to use this time on activities that support students during their field experiences, as well as supporting more experienced teachers in the community. Faculty spend one or two days per week in their assigned schools, supervise student teachers, provide professional development for in-service teachers and work with the administrators on community or school achievement goals. The faculty participating in this project report that a renewed understanding of school conditions is leading to revisions in course content and collaboration with arts and science faculty regarding required courses taken by students who plan to teach (http://www.education.miami.edu/succeed/).

Strengthen, Broaden and Integrate Field Experience Throughout the Preparation Program

To build the skills today's teachers need to improve student achievement, teacher preparation programs must focus on the integration of student field experiences throughout the entire curriculum. Here, alternative route programs to teacher certification have tended to set the standard. Since alternative route participants frequently are able to demonstrate subject matter expertise, these programs focus on the classroom setting for learning and practicing pedagogical skills. Ideally, programs would train teachers in the schools and communities where they will be employed and with the children they will teach. Strong partnerships and faculty support are critical for strengthening, broadening and integrating field experiences throughout a teacher preparation program.

For example, Omaha Public Schools, in partnership with the University of Nebraska at Omaha, has created a successful Minority Internship Program to recruit students of ethnic and racial minorities into the teaching profession. The program provides currently enrolled college students with the opportunity to participate with experienced educators in the classroom. For approximately 10 hours a week, interns work with classroom teachers and students. The program focuses on developing the interns' classroom management skills; human relations skills; teaching styles and strategies; and community, human and cultural awareness. The internship lasts one year with the opportunity to renew.

The program's goals include maintaining an Omaha Public Schools staff that reflects the racial diversity of its students, encouraging minority college students to consider teaching as a career and exposing minority interns to a quality educational experience.

Maryland's Project LINC (Learning in Communities) is one example of a program that is broadening and integrating field experiences in teacher preparation (http://mdk16.usmd.edu/inside.php?area_id=16). The goal of the project is to recruit, prepare and retain quality teachers in Prince George's County Public Schools, a school system with many high-need schools. In order to reach this goal, the project is developing new degree and certification programs, recruiting additional secondary mathematics and science teachers, instituting new Professional Development Schools in which novice teachers receive individualized support and creating induction, mentoring and professional development programs for educators.

One partnership supported by Project LINC is the Two-Plus-Two Program at Prince George's Community College and Towson University. This program allows community college students to earn an associate of arts in teaching and to continue course work for a bachelor's degree and teacher certification at Towson State University. Required courses are offered at the Prince George's Community College campus and at elementary and middle schools surrounding the college. Field experiences occur in public schools surrounding Prince George's Community College.

Strengthen Partnerships

Partnerships between stakeholders in education, teacher preparation programs (traditional and alternative) and external partners such as school districts, local governments and private and nonprofit agencies have long existed. However, all too often, these partnerships have struggled to sustain the true relationships and support necessary to implement meaningful reform. Partnerships have promoted change in teacher preparation by supporting activities such as:

- Strengthening the roles of K-12 educators in the design and implementation of effective teacher education programs;
- Increasing collaboration among the administrators and faculty of higher education institutions' schools of arts and sciences and of education;
- Developing programs that involve broad university and partnership-wide commitment to improving K-12 student learning and achievement;
- Producing teachers with a greater command of academic subjects and the skills to teach by providing strong hands-on classroom experience; and
- Preparing prospective teachers to use technology as a tool for teaching and learning and to work effectively with diverse students.

E=mc2

The University System of the State of Maryland has an effective partnership project called E=mc2. This project addresses the needs of the Baltimore City Public School System through a sustainable K-16 partnership among the University System, the University of Maryland College Park, Towson University, Coppin State University, Baltimore City Community College, Baltimore City Public School System and the Maryland Business Roundtable for Education.

The project focuses on creating three related strands of activity:

- Building a long-term, sustainable pipeline for future teachers, using Future Teachers of America Clubs, and a unique future teacher academy to grow teachers from within the school district;
- Developing a seamless, sustainable Two-plus-Two teacher education program between the four-year partner institutions and Baltimore City Community College through an Associate of Arts of Teaching degree focused on teacher shortage areas; and
- Serving the short-term needs of an urban school system struggling to recruit and retain highly qualified teachers through training for elementary school academic coaches.

More information about this project can be found at: http://mdk16.usmd.edu/inside.php?area_id=18.

Collaboration through partnerships toward the common goal of improving teacher quality shows promise as an effective approach to creating lasting change in teacher preparation programs. Research on effective partnership grants has shown that this process requires flexibility and persistence as well as a substantial commitment on the part of the participants. When the right groundwork is laid through well-functioning governance structures, through broad and deep leadership development and through reasonable and measurable goal identification, the future of sustaining initiatives is likely to be brighter (U.S. Department of Education, Office of the Under Secretary, 2004). The combined resources and capabilities of all partners—school districts, teacher preparation programs, institutions of higher education, local and state governments, along with the federal government and others—are needed if we are to reach our national goals of placing a highly qualified teacher in every classroom by the end of the 2005-06 school year.

Professional Development Schools (PDS) are examples of a partnership model that has become commonplace and an accepted part of the way we think about the role of both the teacher preparation provider and the school district in preparing novice teachers. The PDS model takes its cues from the medical model of training new doctors. It looks at the public school as a clinical training environment and promotes close collaboration between school and university faculty in the review of interns placed in school classrooms. Promoting a more equitable relationship between school and university educators, the PDS model supports the involvement of school faculty in teaching at the university and placing the university faculty as professors in residence at the school site.

Provide Support Programs for New Teachers: Mentoring and Induction

The strategy of supporting novice teachers through mentoring and induction is critical for teacher preparation programs. Teacher turnover, which tends to be approximately 14 to 15 percent annually, is the major factor driving the need for new teachers (Ingersoll, 2003). Retention is key to maintaining the level of teacher workforce needed in the United States. In a recent review of research on induction programs for new teachers, Ingersoll and Kralik (2004) and Smith and Ingersoll (2004) explain that induction programs are generally designed to be a bridge for those who have just left the support of a university-based program and are quickly transitioning into the real world of school and their new occupation. In most states teachers do not have a provisional period where they are placed with an experienced colleague who shows them the ropes and supports their gradual entrance into the new work environment. Because many student teachers do their internships in a school and state different from the one where they eventually become a teacher of record, maintaining a program of support becomes even more important.

Research shows that the presence of an induction and mentoring program has a significant effect on teacher retention (Grant, 2004). Further, new teacher induction and mentoring programs have grown in popularity as one strategy to ease the transition of beginning teachers into full-time classroom instruction and the school atmosphere (Ingersoll and Kralik, 2004). Mentoring, as a component of a comprehensive induction program, provides new teachers with expert guidance for working within the school and a team environment that is a necessity for success in the classroom and teacher retention. Most induction programs are designed to build a new teacher's ability to perform at the highest level, resulting in increased student achievement and overall job satisfaction. School districts also use mentoring programs to give their experienced teachers the tools for improving instruction and to keep teachers engaged and active in the school community, which also results in decreased turnover and attrition.

There has been increased participation of novice teachers in mentoring or induction programs (including those established through partnerships between schools and universities): from 4 in 10 beginning teachers participating in the 1990-91 school year to 8 in 10 participating in the 1999-2000 school year (Smith and Ingersoll, 2004). Evaluations of new teacher induction programs have been completed in more than a dozen states, including three of the largest teacher producers, California, Illinois and Texas. Results from Fuller (2003) and the Charles A. Dana Center (2002) review of the Texas Beginning Teacher Support System (TxBESS) show that 89.2 percent of TxBESS teachers returned after one year and 84.4 percent after two years, compared with 80.8 percent and 75.4 percent for novice teachers who did not participate in the TxBESS Program. The TxBESS Program includes the following components:

- A coherent, standards-based system with performance standards and reflective assessments used to support coaching and mentoring relationships;
- Trained mentors who provide ongoing constructive feedback to beginning teachers;
- Extended training and feedback from formative assessments designed for early-career teachers; and

- Shared responsibility for the performance of beginning teachers demonstrated through partnerships among beginning teachers, local school districts, educator preparation programs, the business community and regional education centers.

While induction programs vary considerably by purpose, individuals involved, length and type of services provided, mentoring is the primary type of personal guidance provided in these programs. Of note, teachers participating in combinations or packages of mentoring and group induction activities are less likely to change schools or to leave teaching at the end of their first year (Smith and Ingersoll, 2004). The programs at the University of Tennessee, the University of Miami and the University of California, Santa Cruz, which are highlighted in this section, provide three examples of different approaches being taken in mentoring teachers new to the profession.

Measure Successful Teacher Preparation by Assessing Student Performance

Measurement of student progress and holding schools and teachers accountable for student achievement are fundamental concepts of the NCLB legislation. Schools and teachers should be accountable for making sure every child reads and does math on grade level, and one way to do this is by measuring our children's progress from year to year. As noted earlier, research shows that how well teachers are prepared as they enter the classroom affects how well their students will achieve. Effective teachers have been shown to raise student achievement scores on standardized tests.

Many states are in the beginning steps of measuring teacher performance and linking that performance to student achievement.

Urban Impact Program

The Urban Impact Program at the University of Tennessee-Chattanooga and -Knoxville designed and implemented a school-based mentoring program to support the induction of interns and novice teachers in high-need urban schools. Each school identified a team of educators who, along with the principals, attended a two-day mentoring workshop sponsored by the Tennessee Academy for School Leaders (TASL) during the summer to develop strategies for the year. This was followed up with a one-day meeting during the year to assess results. Teams at each elementary school consist of teachers from each grade level, one special educator and the principal. At the secondary level, teams consist of two of the teachers from the core content areas and a teacher from another content area, plus the principal. Each team tailors plans to its context. The TASL office has adopted this program to be used across the state.

One state that is working toward this goal is Louisiana. All 20 public and private universities in Louisiana have redesigned their teacher preparation programs to align them with state and national standards for K-12 students and teachers. There is now a new collaborative effort underway between higher education and PK-12 to link student achievement data directly back to the universities that graduate the teachers.

The commitment of the eight universities that comprise the University of Louisiana System (ULS) to fully prepare teacher candidates for their teaching assignments is evident in the

Project School University Community Coalition for Excellence in Education (SUCCEED)

Project SUCCEED at the University of Miami established a SUPPORT network as one component in its stage-by-stage support of novice teachers. The support network, encompassing graduates from the University of Miami as well as other new teachers in partner schools, is managed by a former teacher from the high school in the partnership who became one of the peer partners. An institute is conducted each summer involving teachers with one, two and three years of experience. Teachers are matched with mentors who receive targeted training. Follow-up days are held throughout the year. Some 80 participants took part in the 2004 summer institute. The overall first-year retention rate with mentoring was 90 percent retention; a 98.6 percent retention rate was documented for the first-year teachers alone. The facilitator of the institute recommends that induction programs encompass both professional development and mentoring.

New Teacher Center

The New Teacher Center (NTC) at the University of California, Santa Cruz, is a national resource focused on teacher and administrator induction. The NTC is guided by the belief that learning to teach is a career-long developmental process that involves a continuous cycle of planning, teaching and reflecting. The NTC provides training and consultation to school districts and states planning and implementing induction programs for teachers and administrators.

The NTC's intensive, mentor-based teacher induction model provides individual support and formative assessment for first and second-year teachers. Mentors are exemplary teachers trained to work full time with a small group of new teachers to observe and enhance their teaching skills. Mentoring and new teacher learning is guided by the New Teacher Center Formative Assessment System (NTCFAS), a set of tools that mentors use to help new teachers establish and achieve professional goals related to teaching and content standards. FAS tools, which are designed to be embedded in the day-to-day practice of teachers, provide structured opportunities for the experienced teacher to share knowledge and expertise with the novice teachers, based on student data they have collected together. New teachers also attend monthly seminars focused on topics such as working with diverse student populations and understanding content standards.

The NTC's local induction program, the Santa Cruz New Teacher Project, has achieved long-term new teacher retention rates approaching 90 percent. The NTC also offers online professional development courses for new teachers, covering topics such as "Supporting Equity and Diversity" and "Working with Special Educations."

Teacher Warranty Program, which guarantees the quality of its education graduates or they will be retrained for free. Under the agreement, if an ULS graduate's performance is deemed "unacceptable," the university will provide one semester of undergraduate or graduate work focusing on the teacher's weakness, and one year of follow-up mentor supervision at no charge to the student. The president of the ULS has a strong belief that when students fail it is not the fault of the students but rather a lack of coordinated effort on the part of teachers, school leaders and university administrators to ensure that all students have the opportunity to succeed. University presidents will be held accountable for the teachers and principals they graduate from their respective universities. As leaders, they must guarantee that all teachers can teach to diverse backgrounds, infuse technology throughout the curriculum and move student achievement to a pre-agreed-upon level of higher performance.

In Illinois, Project REAL (Rockford Education Alliance) is conducting a matched pairs, quasi-experimental design with control and intervention schools to measure and compare student performance over time. The goal of the project is to improve in five years the academic achievement of students in four of Rockford's public schools so that 75 percent of the students in these schools are meeting or exceeding standards on state assessments. To reach its goal, Project Real is enhancing the skills of its teachers by improving the teacher preparation programs at the Northern Illinois University and Rock Valley College, recruiting new teachers to the Rockford School District, providing diverse field experiences for teacher candidates and training and supporting school leadership. The Project REAL (http://www.projectreal.niu.edu/projectreal/) partnership includes the Northern Illinois University, Rock Valley College and Rockford School District 205. The baseline year for Project REAL was 2004, and measurement will continue through 2009.

The next chapter of this report focuses on national measurement of teacher quality as required under Title II of the HEA. The report summarizes and analyzes the Title II accountability data reported by states. As with student data, the teacher data paint a picture of mixed results.

CHAPTER 3

Measuring Progress: State Teacher Quality Reporting

Each year, the HEA Title II reporting system collects a set of indicators, benchmarks and trend data to inform educators, policymakers and the public on the continuous improvement of policies and requirements that affect the quality of teacher preparation. The Title II system also serves as a national clearinghouse on state policies regarding the training and certification or licensure of new teachers. Fifty-four states and outlying areas report data to the Department. Over time, the quality and usefulness of the data has substantially improved. The system tracks data in the following key areas:

- Numbers of teachers receiving initial certification;
- State certification and licensure requirements for new teachers;
- Statewide pass rates on the most recent assessments of graduates;
- Numbers of teachers on waivers;
- State identification of low-performing teacher preparation programs at institutions of higher education; and
- Alternative pathways to teaching.

Number of Teachers Receiving Initial State Certification

The number of new teachers certified has remained fairly steady during the last four years, with about 300,000 individuals receiving initial certification annually. In 2004, the number reported totaled 315,298 teachers. This is an increase from the 305,047 certified in 2003.[5] Table 1 shows the total number of individuals receiving their initial certification in 2004 by the state issuing the certificate or license.

As Figure 2 shows, five states, California, Florida, New Jersey, New York and Texas, produce approximately 38 percent of the nation's teachers. Other states, with fewer teacher education institutions and fast-growing school districts, must rely on hiring teachers trained out-of-state. In Nevada and Wyoming, for example, more than 60 percent of their initial certificates were granted to teachers prepared in a program in another state. Each of these states has a different supply problem: Wyoming imports teachers to serve in rural areas, while Nevada has the fastest growing school district in the country and cannot keep up with the demand.

Overall, 68,929—or 22 percent—of those certified in a state completed their program in another state. In 12 states, 40 percent or more of those receiving initial certification were trained in another state. These states are Alaska, Colorado, Connecticut, Delaware, Georgia, Maryland, Nevada, New Hampshire, North Carolina, Ohio, South Carolina and Wyoming. Figure 3 illustrates the percentage of teachers receiving initial certification who were trained in another state in 2002-03. Because individual states have varying teacher certification requirements, as well as teacher and student

5 The number of initial certificates granted each year is not the sum of traditional and alternative route program completers. A program completer is a person who has met all of the requirements of a state-approved teacher preparation program. For a variety of reasons, not all program completers seek or are recommended for state certification.

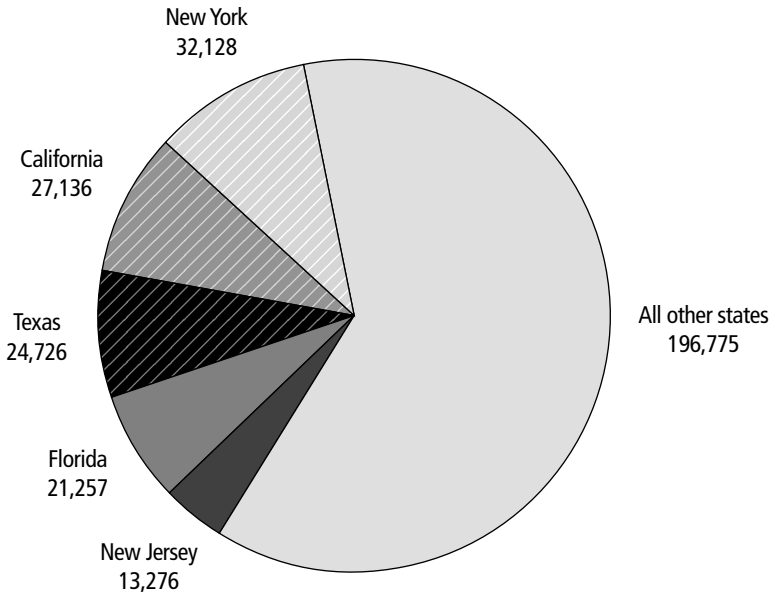
Table 1. **Number of teachers receiving initial certification, by state: 2002-03**

State	Number of teachers receiving initial certification
Alabama	5,633
Alaska	936
Arizona	11,174
Arkansas	2,053
California	27,136
Colorado	5,591
Connecticut	3,526
Delaware	922
District of Columbia	1,200
Florida	21,257
Georgia	9,666
Guam	109
Hawaii	716
Idaho	1,850
Illinois	11,182
Indiana	5,687
Iowa	3,217
Kansas	1,749
Kentucky	3,729
Louisiana	4,198
Maine	1,294
Maryland	5,929
Massachusetts	8,054
Michigan	7,641
Minnesota	11,348
Mississippi	1,189
Missouri	5,326
Montana	1,522
Nebraska	2,244
Nevada	2,664
New Hampshire	1,873
New Jersey	13,276
New Mexico	2,596
New York	32,128
North Carolina	9,679
North Dakota	506
Ohio	6,040
Oklahoma	2,091
Oregon	3,708
Pennsylvania	12,608
Puerto Rico	3,017
Rhode Island	1,308
South Carolina	2,049
South Dakota	943
Tennessee	9,145
Texas	24,726
Utah	2,830
Vermont	702
Virgin Islands	60
Virginia	5,304
Washington	4,959
West Virginia	1,740
Wisconsin	4,699
Wyoming	569
Total	315,298

NOTE: For purposes of this table, the term "state" refers to the 50 states, the District of Columbia, Puerto Rico and outlying areas.

SOURCE: U.S. Department of Education, Higher Education Act Title II Reporting System, 2004.

Figure 2. **Number of teachers receiving initial certification, by top five teacher-producing states and all other states: 2002-03**



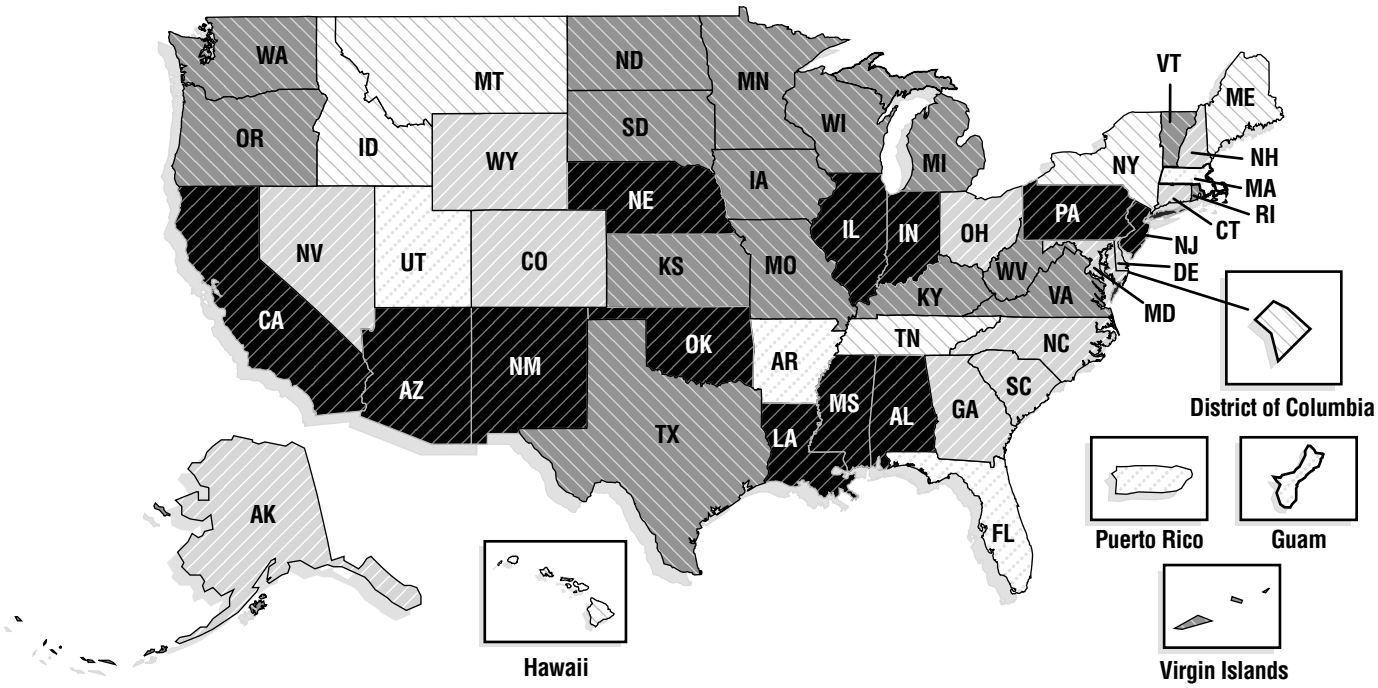
SOURCE: U.S. Department of Education, Higher Education Act Title II Reporting System, 2004.

standards, it is important that teacher preparation programs prepare their teacher candidates to meet the highest standards. Further, states and school districts may need support and mentor new teachers to ensure that all requirements and standards are met.

Alternative route programs to teacher certification approved by states produce about 35,000 program completers annually (the total reported in 2004 was 35,353). Table 2 presents the number of alternative route to teacher certification completers, by state in which they completed the program, from 2002 through 2004. In 2004, the top five states producing teachers through alternative routes to teacher certification were California, Georgia, New Jersey, New York and Texas. Together, these five states produced 82 percent of all teachers prepared through alternative routes to teacher certification nationally.[6] With one exception, Georgia, these states are also the top producers of traditional teacher candidates. Clearly, traditional programs for teacher certification, rather than alternative route programs, remain America's primary pathway to entering the teaching profession. However, as noted previously, the number of alternative programs is growing.

6 These data may not include the number of alternative route completers from states that do not have testing programs.

Figure 3. **Percentage of teachers receiving initial certification who were trained in another state, by percentage reported by state: 2002-03**



Less than 10%	10% to 20%	More than 20% to 40%	More than 40%	Did not report
Arkansas	Alabama	Iowa	Alaska	District of Columbia
Florida	Arizona	Kansas	Colorado	Hawaii
Guam	California	Kentucky	Connecticut	Idaho
Massachusetts	Illinois	Minnesota	Delaware	Maine
Puerto Rico	Indiana	Missouri	Georgia	Montana
Utah	Louisiana	North Dakota	Maryland	New York
	Michigan	Oregon	Nevada	Tennessee
	Mississippi	Rhode Island	New Hampshire	
	Nebraska	South Dakota	North Carolina	
	New Jersey	Texas	Ohio	
	New Mexico	Vermont	South Carolina	
	Oklahoma	Virgin Islands	Wyoming	
	Pennsylvania	Virginia		
		Washington		
		West Virginia		
		Wisconsin		
Total: 6	**Total: 13**	**Total: 16**	**Total: 12**	**Total: 7**

NOTE: This map reflects persons receiving initial state certification only. For purposes of this figure, the term "state" refers to the 50 states, the District of Columbia, Puerto Rico and outlying areas.

SOURCE: U.S. Department of Education, Higher Education Act Title II Reporting System, 2004.

Table 2. **Number of alternative route to teacher certification completers reported, by state: 2002 through 2004**

State	Report year			State totals 3-year
	2002	2003	2004	
Alabama	—	1,270	329	1,599
Alaska	—	0	0	0
Arizona	0	—	—	0
Arkansas	56	136	133	325
California	—	3,714	4,874	8,588
Colorado	242	—	456	698
Connecticut	164	197	244	605
Delaware	7	22	30	59
District of Columbia	—	—	—	0
Florida	82	—	348	430
Georgia	4,329	—	1,230	5,559
Guam	—	—	—	0
Hawaii	55	133	59	247
Idaho	—	—	—	0
Illinois	—	155	228	383
Indiana	0	0	141	141
Iowa	0	—	0	0
Kansas	0	31	48	79
Kentucky	35	101	226	362
Louisiana	211	456	718	1,385
Maine	142	143	178	463
Maryland	13	10	103	126
Massachusetts	4,456	301	169	4,926
Michigan	—	0	7	7
Minnesota	15	20	11	46
Mississippi	1,014	58	516	1,588
Missouri	29	59	128	216
Montana	—	—	—	0

Table 2. **Number of alternative route to teacher certification completers reported, by state: 2002 through 2004** *continued*

State	Report year			State totals 3-year
	2002	2003	2004	
Nebraska	—	—	—	0
Nevada	0	104	12	116
New Hampshire	107	—	149	256
New Jersey	1,411	1,691	1,804	4,906
New Mexico	0	59	159	218
New York	10,506	10,539	14,906	35,951
North Carolina	0	—	209	209
North Dakota	—	—	—	0
Ohio	33	84	304	421
Oklahoma	1,954	588	617	3,159
Oregon	0	1,881	—	1,881
Pennsylvania	0	0	0	0
Puerto Rico	53	46	78	177
Rhode Island	0	—	—	0
South Carolina	344	142	165	651
South Dakota	952	843	—	1,795
Tennessee	82	118	118	318
Texas	2,836	3,970	6,191	12,997
Utah	132	24	104	260
Vermont	52	44	86	182
Virgin Islands	0	51	—	51
Virginia	359	115	268	742
Washington	0	0	—	0
West Virginia	0	—	0	0
Wisconsin	0	—	—	0
Wyoming	—	—	7	7
Total	29,671	27,105	35,353	92,129

— Data not available.

NOTE: In 2004, Hawaii, Maryland, Tennessee and Texas did not provide the actual number of completers. The number of completers was calculated from the pass rate tables. Oregon reported in 2004 that the state does not have alternative routes, and that data were reported in error in 2003. For purposes of this figure, the term "state" refers to the 50 states, the District of Columbia, Puerto Rico and outlying areas.

SOURCE: U.S. Department of Education, Higher Education Act Title II Reporting System, 2004.

Teacher Distribution: The Real Teacher Shortage

We now know that teacher preparation programs produce adequate numbers of teachers. The problems are that teachers are not distributed where the needs are the greatest and teacher attrition rates are high, particularly in the first few years of teaching (Ingersoll, 2003). America faces teacher distribution shortfalls related to subject areas and grade levels as well as rural and urban locations.

NCLB has focused attention on the uneven distribution of highly qualified teachers across subject areas, grade levels and types of school districts. Our nation's teacher preparation programs are training an excess of elementary teachers but not nearly enough secondary teachers in critical areas such as science and mathematics. The Department has been encouraging states to use ESEA Title II, Part A, funds not only to prepare highly qualified teachers but also to address these shortage areas through improved teacher training, recruitment and retention practices.

Suburban schools historically have had access to an adequate pool of qualified teachers, whereas inner-city schools, high-need schools and those in the most isolated rural areas have suffered staffing shortages. While nationally researchers have illustrated that enough teachers are being produced, individual school districts often face obstacles to placing well-prepared teachers into the classroom Districts in high-need, high-growth, rural and outlying areas are challenged with recruiting teachers to the area and struggle especially with meeting their demand for qualified teachers in high-need subject areas. In many urban districts, for example in Baltimore and in Cleveland, where the teacher supply is not keeping up with the demand, recruiting efforts are stepping beyond the state and even national borders to look for new teachers in other countries. Other districts are investing heavily in broad local recruitment efforts and incentive programs.

"We know that our ability to recruit and retain highly qualified teachers to prepare today's students is fundamentally intertwined with competitiveness and global security. Only through a national commitment to build and sustain a highly qualified teaching force will we be able to provide all students with a world-class education."

—Sally L. Stroup,
Assistant Secretary for
Postsecondary Education

Teacher Retention

In response to concerns about teacher availability and retention, states and local education agencies (LEAs) are compiling data and identifying innovative approaches to recruiting and retaining highly qualified teachers. For example, North Carolina compiles an annual report detailing teacher turnover in the state. Mandated by the state legislature to monitor teacher's decisions to leave the teaching profession, the state collects and analyzes data on all teachers in the state. LEAs reported the number of teachers employed

Teacher Recruitment in Clark County, Nev.

Nevada institutions of higher education only prepare 30 percent of the teachers needed in the state. One of the fastest growing counties in the nation in 2003-04, Clark County heavily recruits new teachers. It has 180 recruiters, including public school principals and assistant principals, who visit 41 states a year to draft new teachers.

One program targets stay-at-home mothers with college degrees. The program offers the required courses at local elementary schools following that school's schedule. This allows the future teachers to maintain the same schedule as their children and provides immediate access to mentor teachers and classroom exposure.

Another program addresses a shortage of special education teachers in the district. Clark County looks to those already working for the district that may have an interest in special education but do not meet the teaching requirements. These individuals can continue to receive their full salary and benefits while completing the one-year program at a local university, which includes a field work component.

To specifically target minority teachers and high-need areas, high school students who may be interested in teaching are offered the opportunity to take courses for both high school and college credit starting in their sophomore year. The college credits the students accrue during this time reduce both the time and financial burden of those college courses later. Students have a teacher mentor and are presented with a teaching contract at their high school graduation, contingent upon their successful completion of college and the promise to work in a critical needs area. The most recent cohort in this program included 131 students. Ninety-nine percent of the students were minorities, with all but two being first-generation college attendees.

between July 1, 2003, and June 30, 2004; the total number of teachers leaving the system; the number of teachers with tenure who were leaving; and the reason given by teachers for leaving. All 117 North Carolina LEAs reported data showing that 11,399 of the 92,166 teachers employed during the school year left their systems. This level of detail provides the state with crucial data on attrition, which can be used to develop strategies for retaining highly qualified teachers.

In addition, Clark County, Nev., one of the fastest growing counties in the nation in 2003-04, is placing a highly qualified teacher in every classroom through a variety of initiatives that range from offering unique teacher training programs to helping teachers and their families successfully relocate from other states.

State Certification Requirements

In most states, certification offices are the gateway for incoming and veteran teachers. These offices provide potential teachers with information about teaching in the state, maintain certification and licensing records for every teacher, and ensure that teachers meet state regulations and license renewal requirements throughout their careers. Comprehensive assessment information for those institutions that train teachers is available through the

certification offices of each state and from the annual reports of the National Association of State Directors of Teacher Education. The HEA Title II reporting system maintains a complete listing of state certification requirements and whether applicants for certification must successfully complete assessments to qualify. This information is available at http://www.title2.org/.

As noted in Chapter 2, the NCLB teacher quality provisions detail the requirements that new and veteran teachers must meet to attain highly qualified status. In order to be highly qualified under NCLB, a teacher of a core academic subject must:

- Hold a bachelor's degree;
- Have full state certification; and
- Demonstrate subject area competency by passing a state content assessment, or by holding an undergraduate major, by completing course work equivalent to an undergraduate major, or by holding a graduate degree in the subject(s) taught (secondary school teachers only), or by going through their states' High Objective Uniform State Standard of Evaluation (HOUSSE) procedures (veteran teachers only).

Content Area Expertise

To be a highly qualified teacher under NCLB, teachers must demonstrate content mastery in each subject taught. However, in 2000, only 47 percent of secondary teachers in the United States held an academic major in their subject assignments (NCES, 2002). As noted in Chapter 2, teachers must have a strong knowledge of the subjects they are teaching and the skills and instructional strategies to teach diverse learners in order for students to achieve educationally.

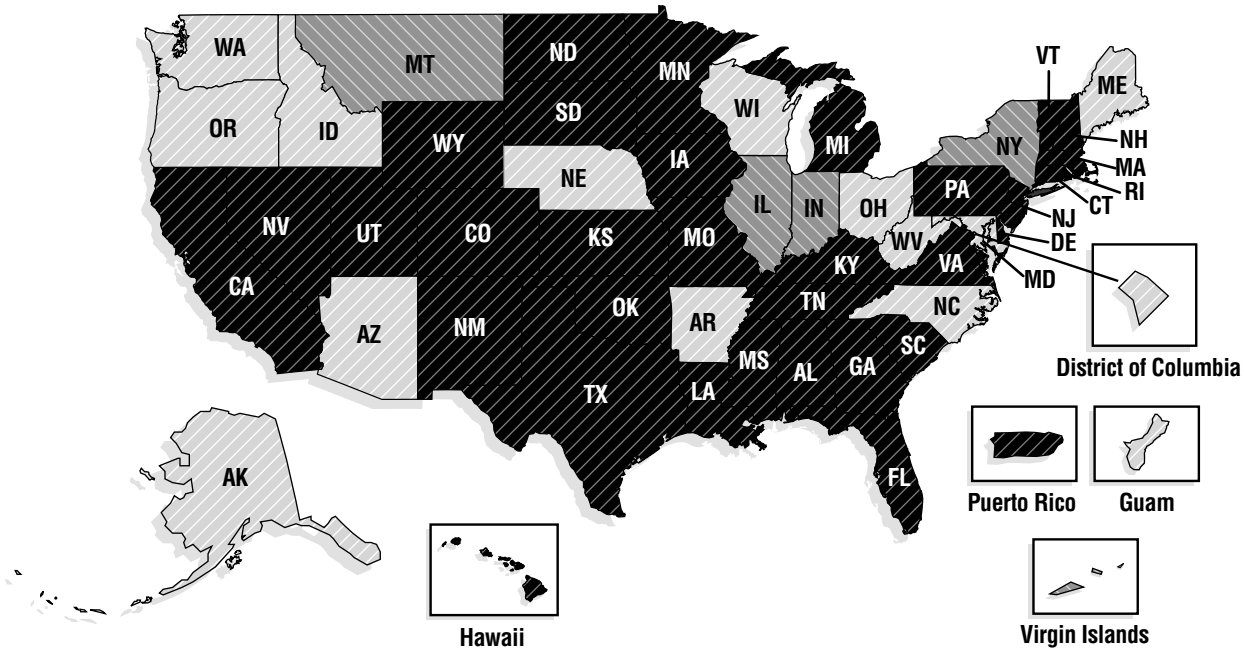
New elementary school teachers must demonstrate content mastery by passing a rigorous state test of subject knowledge and teaching skills in reading and language arts, writing, mathematics and other areas of the basic elementary school curriculum. New middle and high school teachers demonstrate content mastery by passing a rigorous state test in each subject taught or by holding an academic major or having completed course work equivalent to an academic major (or an advanced degree, advanced certification or credentials). Veteran teachers may also go through their states' HOUSSE procedure.

The HEA Title II reporting system tracks the degrees that states require for certification eligibility. States have multiple initial certificates and requirements that differ across each certificate. Appendix A1 provides a listing of state requirements for initial teaching certification or licensure. In 2004, the total number of states requiring a content area bachelor's degree for at least one of their initial licenses was 39. The remaining 15 states (less than one-third) have no content area bachelor's degree requirement. Figure 4 is a national map illustrating content area degree requirements by state. Many states that do not require a content area bachelor's degree often require content assessments. In fact, only six states report requiring neither a content area bachelor's degree nor a content area assessment.

Raising Standards for Teachers

In an effort to raise standards for prospective teachers, states are moving away from simply awarding a teaching certificate to individuals who take specific courses or meet a minimum number of hours of credit. Instead, states are moving toward performance-based standards, which require teacher candidates to demonstrate

Figure 4. **States requiring content-specific bachelor's degrees for initial certificates, by content-specific degree standard: 2004**



Content-specific degree standard in place for all initial certificates	Content-specific degree standard in place for at least one initial certificate	No uniform content-specific degree standard
Alabama	Illinois	Alaska
California	Indiana	Arizona
Colorado	Montana	Arkansas
Connecticut	New York	District of Columbia
Delaware	Virgin Islands	Guam
Florida		Idaho
Georgia		Maine
Hawaii		Maryland
Iowa		Nebraska
Kansas		North Carolina
Kentucky		Ohio
Louisiana		Oregon
Massachusetts		Washington
Michigan		West Virginia
Minnesota		Wisconsin
Mississippi		
Missouri		
Nevada		
New Hampshire		
New Jersey		
New Mexico		
North Dakota		
Oklahoma		
Pennsylvania		
Puerto Rico		
Rhode Island		
South Carolina		
South Dakota		
Tennessee		
Texas		
Utah		
Vermont		
Virginia		
Wyoming		
Total: 34	**Total: 5**	**Total: 15**

NOTE: For purposes of this figure, the term "state" refers to the 50 states, the District of Columbia, Puerto Rico and outlying areas.

SOURCE: U.S. Department of Education, Higher Education Act Title II Reporting System, 2004.

that they possess the necessary knowledge, skills and abilities to teach today's diverse student population. The performance-based standards are often aligned with current curricula and standards for K–12 students, as well as with assessments for prospective teachers. According to one expert, Sharon Yates, a nationally recognized expert in teacher standards, "teachers must have ownership of the academic content standards that ground the content they teach" in order to increase student achievement.

States are taking different approaches in assessing how well prospective teachers are meeting standards. Some states require those seeking state licensure to take pedagogy and content tests. A number of states have adopted nationally recognized standards that define what teachers should know and should be able to do. Other states call for prospective teachers to compile portfolios or artifacts that demonstrate their mastery of state standards. For example, Maine has developed an electronic portfolio system where teacher candidates are able to store their work that addresses state standards. Tables 3 and 4 provide a summary of policy processes and show the status of teacher standards from 2001 to 2004.

As shown in Table 3, by 2004, 49 states reported they have developed standards that prospective teachers must meet to qualify for initial teacher certification. Additionally, the number of states and outlying areas that have established a policy that links, aligns or coordinates teacher certification or licensure requirements with state content standards for students has grown to 43 in 2004, up from 35 in 2001. However, the extent of alignment between teacher certification standards and state content standards for students remains unclear. The data in Table 4 show that a total of 53 states reported they have set teacher standards that apply to all teaching fields at all levels.

Standard setting is lacking, however, in fields and at grade levels of concern to NCLB (which reflects expectations for all teachers). For example, only 25 states (up from 19 in 2001) report standards for English or language arts teachers at all grade levels. Similarly, the number of states with standards for teachers at all levels in mathematics has increased by five since 2001. Although this increase is promising, only 23 states currently have teacher standards in mathematics at all levels. Thus, fewer than 50 percent of all states have English or language arts and mathematics standards.

At the middle school level, we see similar numbers. Only 16 states have standards for English or language arts and mathematics—subjects that are critical for all students. At the high school level, 22 states have English or language arts standards, and 23 states have mathematics standards.

Clearly, there is still much work to do in setting standards for teachers in core academic areas at all levels, elementary, middle and high school. However, 42 states indicated that they are taking other steps to develop or implement standards and align teacher preparation, certification or licensure standards with content standards. California and New Mexico are examples of states that are working to improve teacher standards:

- California has adopted new subject matter standards in eight subject areas: English or language arts, mathematics, science, social science, art, music, physical education and languages other than English. The state is currently developing new subject matter requirements and standards in five additional

Table 3. **Summary of state policies on and status of teacher standards: 2001 through 2004**

Standards / Policies	2001 (N=52)	2002 (N=54)	2003 (N=54)	2004 (N=54)
Has the state established content standards for K-12 students?	50	53	53	53
Has the state developed standards that prospective teachers must meet in order to attain initial teacher certification or licensure?	45	47	49	49
Are plans currently being formulated to link, align or coordinate teacher certification or licensure standards with state content standards for students?	37	40	40	40
Have one or more linkage, alignment, or coordination committees or working groups met, but not yet produced a report or a set of recommendations?	21	18	19	19
Has a report or set of recommendations been developed to address linkage, alignment, or coordination between teacher certification or licensure requirements and state content standards for students?	28	36	38	37
Has the state established a policy that links, aligns or coordinates teacher certification or licensure requirements with state content standards for students?	35	41	40	43
Has a date been set by which the recommendation will be implemented?	32	39	39	43
Has an implementation group been established?	25	33	32	37
Are other steps being taken to develop or implement standards and align teacher preparation, certification or licensure standards with content standards?	33	39	40	42

NOTE: For purposes of this table, the term "state" refers to the 50 states, the District of Columbia, Puerto Rico and outlying areas.
SOURCE: U.S. Department of Education, Higher Education Act Title II Reporting System, 2004.

subject areas—agriculture, business, health science, home economics and industrial and technology education. Fully aligned subject matter assessments in these four areas are currently under development and are expected to be available to teacher candidates in fall of 2005.

- In the summer of 2003, New Mexico created an Educator Quality Division within its Department of Education. This division houses licensure, educational ethics, and recruitment, retention and professional development. It also oversees the Highly Qualified Teacher (HQT) provisions of NCLB. At the same time, the state went through an enormous effort to dramatically revise its licensure system to increase the rigor of requirements and to incorporate NCLB, HQT and a state mandate concerning teacher licensure reform. The result was a legislatively sanctioned three-tier licensure system. This licensure system includes experience, performance and statewide salary minimums for each tier and is based on increased compensation for

Table 4. **Number of states that have set teacher standards in specific fields, by grade level: 2004**

Field	Grade level				
	All levels	Grades K-3	Grades 4-6	Middle grades	Secondary grades
All teaching fields	53	37	10	33	40
Arts	43	3	3	2	4
Bilingual education, ESL	40	4	3	3	4
Early childhood education	8	35	0	0	0
English/Language arts	25	2	4	16	22
Languages other than English	42	3	3	5	8
Mathematics	23	3	5	16	23
Science	23	3	5	16	23
Social studies	22	2	4	16	23
Special education	43	5	3	3	5
Technology in teaching	34	2	2	4	6
Vocational/Technical education	10	1	2	14	34

NOTE: For purposes of this table, the term "state" refers to the 50 states, the District of Columbia, Puerto Rico and outlying areas.
SOURCE: U.S. Department of Education, Higher Education Act Title II Reporting System, 2004.

increased accountability. It also includes provisions for establishing HQ status, including definitions and rules for the subject area competency through the use of HOUSSE. In order to be licensed, every new teacher must be highly qualified in all core subjects he or she teaches and all current teachers must meet the NCLB deadlines. The licensure system should be fully implemented by 2007-08.

Pass Rates on State Teacher Assessments

In accordance with HEA Title II, states publish pass rates on state assessments for teacher certification or licensure and the minimum passing scores on these assessments. Pass rates are defined as the percentage of students who successfully pass the assessment test. "Minimum passing score," also referred to as the "cut score," is the minimum score that the test taker may receive and be considered to have passed successfully the assessment test.

Pass rates are one way to measure how well new teachers know the content of the subjects they will teach before they enter the classroom.

Nationally, 44 states rely on the resources of two different testing companies—the National Evaluation Systems (NES) and the Educational Testing Service (ETS)—to provide reliable and valid assessments. A few states such as Florida and Kentucky have created their own assessments to supplement those provided by the national testing companies. All but seven states offer testing programs. The states have the authority to establish the types of assessments required for certification and the minimum passing scores.

Under NCLB, new elementary teachers must pass a rigorous assessment of their content knowledge and teaching skills in reading, writing, mathematics, and other areas of the elementary school curricula. A recent Department survey of state testing programs found that all but four states have teacher testing in place or will have testing in place by 2006 (U.S. Department of Education, 2005).

Since the HEA Title II reporting system began collecting data in 2000, each year more states have begun using assessments to evaluate a teacher's preparedness for the classroom. For example, recently Arizona implemented a statewide testing program, and Idaho and Montana are in the final stages of piloting new testing programs. Additionally, South Dakota, Utah and Washington are phasing in assessment programs.

Of continuing concern is the low level of the minimum passing scores (cut scores) for teacher assessments. Most of the minimum passing scores are set lower than the national median scores for these assessments. Further, despite increased pressure to raise minimum scores, they have been fairly stable over time.

As would be expected, given the generally low passing score requirements, overall, prospective teachers pass the assessments at a very high rate an average of 95 percent nationally. In fact, most test pass rates are in the 90 to 100 percent range. As a result of the low minimum passing scores and the high test-taker pass rates, many question the value of the current pass rates for determining how well novice teachers are prepared to enter the classroom. The solution is to raise the minimum scores on these assessments to the levels commensurate with the skills needed to be a highly qualified teacher. Appendix A2 provides pass rate data for each state, overall and in different assessment areas.

Based on their graduates' assessment pass rates, states rank institutions into quartiles. In 2004, selected institutions did experience improved quartile rankings. As a group, Historically Black Colleges and Universities (HBCUs) have tended to have lower pass rates on teacher assessments as compared to the nation as a whole. However, overall HBCU pass rates have increased by 11 points since 2000, increasing from 76 to 87 percent. In fact, five of these institutions have increased their pass rates by more than 40 points. In Virginia, Hampton University increased its overall pass rate dramatically, by 67 percentage points, and three quartiles, over the past four years. These impressive improvements were the result of a number of changes, beginning with examining pass rate data trends and identifying changes that could be made to the teacher preparation program to meet individual students' needs. The university raised expectations and standards for the teacher candidates while providing them with intensive, personalized

assistance such as using liberal arts professors from the university to tutor the students in the content areas and using retired public school teachers to provide direct instruction to the students in reading, writing and math. The university also altered program requirements such as changing the point at which the students were required to take the assessments and including test preparation in course syllabi. More information about Hampton University's teacher preparation program improvement can be found at http://www.acenet.edu/resources/presnet/great-ideas/index.cfm?ideaID=12/.

Number of Teachers on Waivers

Department of Education regulations on teacher quality require states to stop granting waivers of state certification requirements to teachers of core academic subjects by the close of the 2005-06 school year. States grant waivers to teachers to alleviate staffing shortages in schools. A waiver may allow a teacher to teach while working to meet certification requirements, to teach a subject outside of the field in which he or she was trained, or even be used as a stopgap measure to fill classroom vacancies. Teachers on waivers do not meet the requirements for full certification. They generally hold some kind of provisional, emergency or temporary license.

HEA Title II data show that teachers holding a waiver from full state certification are more likely to work in high-poverty school districts and in high-need subject areas. These are the areas where research shows that our nation's students have the greatest need for quality teachers. Further, a large proportion of the teachers on waivers are teaching mathematics and science, two areas where there are critical shortages.

The accountability systems established by HEA Title II and NCLB collect data on the numbers of teachers on waivers and the national usage of emergency and temporary licenses.

Changes in the Waiver Definition

For the 2004 data reporting cycle, the definition of a waiver was revised to align more closely with the NCLB provisions for highly qualified teachers. The HEA 2004 waiver reporting requirements were modified to exclude both teachers participating in alternative routes who are considered fully certified for purposes of NCLB, and those teachers who are short- or long-term substitutes (as defined by the state).

States also were asked to report waiver data by teachers of core content subject matter areas. For all grade levels, states reported on waivers for arts, special education and bilingual education. At the elementary level, states reported on waivers for reading. For the middle and secondary grades, states waivers reported for English, math, science, foreign languages, civics and government, economics, history, geography and career or technical fields.

Prior to the revision in the waiver definition, states reported the number of teachers on waivers who met the following criteria:

> Any temporary or emergency permit, license or other authorization that permits an individual to teach in a public school classroom without having received an initial certificate or license from that state or any other state.

The original definition allowed states to exclude from the count any teacher who had ever received a certificate in that state or any other state. Further, states identified those teachers who held a waiver to teach but had content area

expertise in the subject they were assigned to teach. Title II guidance stated that "sufficient content knowledge" meant completing an academic major in each of the content areas taught or passing the state's assessments of the subject areas taught.

While the definition change results in improved reporting consistency, it limits the use of this year's waiver data when comparing the data to any previous year's reported waiver information. It also limits the ability to conduct meaningful waiver trend analyses that cover the HEA Title II reporting system collection of data since its inception in 2001.

Figure 5 illustrates that, for the 2003-04 reporting cycle, states reported that 3.5 percent of teachers were considered to have a waiver. While trends cannot be calculated in the overall reduction of teachers on waivers due to the definitional change, the data show that from 2001-02 to 2002-03, 21 states reported a decrease in the percentage of teachers on waivers. Additionally, 18 states also saw a decline in the percentage of teachers on waivers in high-poverty districts.

Even with the change in the waiver definition, the data reported in 2003-04 are useful in measuring the continuing challenge for America's schools: the data illustrate that we still have too many teachers on waivers, and too many districts continue to struggle with a higher concentration of teachers on waivers in high-poverty school districts than in all other districts. In 2003-04, states reported a 2.1 percentage point gap between the average percentage of teachers on waivers in high-poverty districts and all other school districts; 5.2 and 3.1 percent, respectively. Further, in 2003-04, 17 states report rates above the national average in their high-poverty districts, with Maryland's rate of 20.2 percent being the highest nationally. As Appendix A3 and Appendix A4 show, much work remains to be done to reach our national goal of a highly qualified teacher in every classroom.

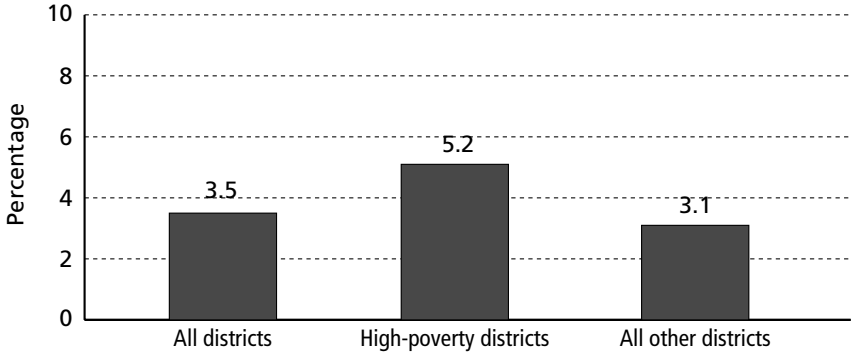
The continued use of waivers and emergency and temporary licenses can be viewed as one more illustration of the demand states face to recruit and retain highly qualified teachers. Delaware, Nevada and North Carolina have adopted aggressive approaches to meeting the challenge to have a highly qualified teacher in every classroom and thus reduce the need for waivers and emergency licensure. States are addressing the challenge of teacher turnover and recruitment with innovative strategies (see sidebar).

In addition to reporting where teachers with waivers currently work, states also report waiver data by subject area and grade level. For those states reporting 2003-04 data by subject area, special education (primarily for K-12) is the subject area with the highest percentage of teachers on waivers (6.3 percent). Special education is followed by geography and foreign languages (at the secondary level, 5.7 percent and 5.5 percent, respectively) bilingual education (all levels, 3.6 percent) and mathematics and science (secondary level 3.6 percent). Figure 6 compares the percentage of teachers on waivers in different subject areas in 2003-04.

Ending the Use of Emergency and Temporary Licenses

The 2005-06 NCLB school year deadline for meeting the highly qualified teacher requirements also applies to ending the use of temporary and emergency licenses. However, states report little movement in this area.

Figure 5. **Percentage of classroom teachers on waivers, overall and by poverty status of district: 2003-04**



SOURCE: U.S. Department of Education, Higher Education Act Title II Reporting System, 2004.

Figure 7 identifies the states that are reporting the existence of emergency or temporary licenses, by renewal status. Some trend analyses suggest that states are moving away from using long-term emergency licenses with numerous renewals. For example, in 2001 there were 28 emergency licenses with unlimited renewal (states may have more than one emergency license), but in 2004 there were only 16 licenses with unlimited renewal, a reduction of more than 40 percent. However, in 2001 there were 28 emergency licenses that were not renewable, and in 2004 there are now 50 licenses that are not renewable.

Innovative Strategy to Eliminate Waivers

The Delaware Teacher Corps Program provides financial assistance to Delaware residents who want to become teachers in critical need areas in the state's public middle schools and high schools. The program helps recruit teachers to meet shortages in high-need subjects and target future teachers while they are still in high school.

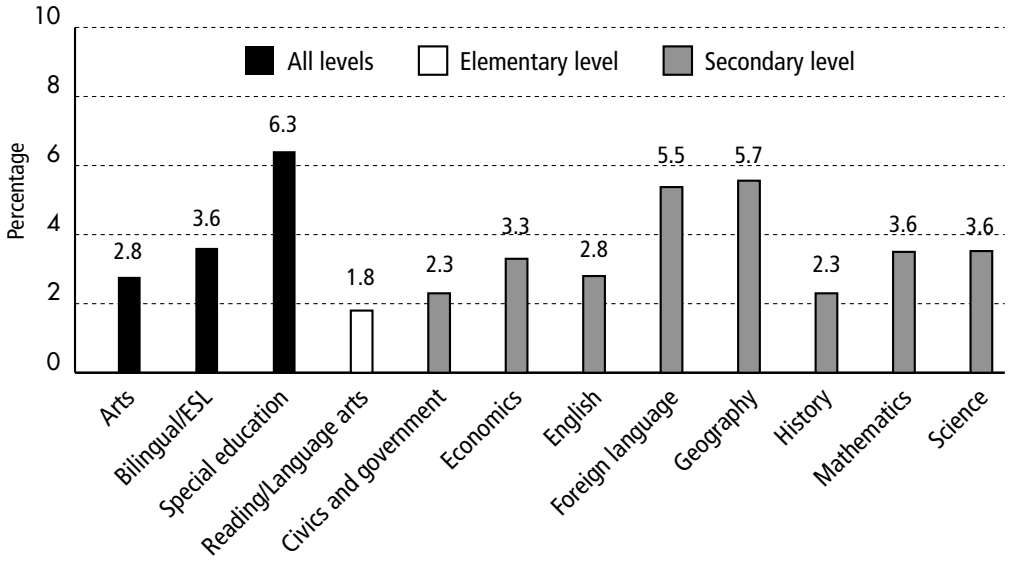
The program provides a service repayment loan of the cost of tuition annually to full-time students at a Delaware public college or university who are enrolled in an academic program leading to teacher certification in a critical need area. First preference is given to students who intend to teach middle and high school mathematics or science. Students who intend to teach special education in a content area are given second priority. The service repayment loans are renewable for up to three years of undergraduate study if the student retains at least a 2.75 grade point average. High school seniors are also eligible for the program. The students must rank in the upper half of their graduating class and meet minimum score requirements on the SAT or ACT (http://www.state.de.us/governor/news/2004/09september/090804 - delaware teacher corps.shtml).

A number of states are acting to reduce the use of emergency licenses. In 2002, Colorado revised the licensing requirements for its Authorization-Emergency permit from unlimited renewals to a permit with a one-year duration and one renewal. Additionally, 13 states, including two of the top five teacher-producing states, Florida and New York, do not allow any renewals of their temporary permits to teach. Another three states report that they do not have any emergency or temporary licenses. These changes are helping to ensure that classrooms are headed by teachers that meet full certification requirements as well as the NCLB definition of highly qualified. Appendix A5 provides a list of emergency or temporary licenses issued by the states in 2004.

State Identification of Low-Performing Teacher Preparation Programs

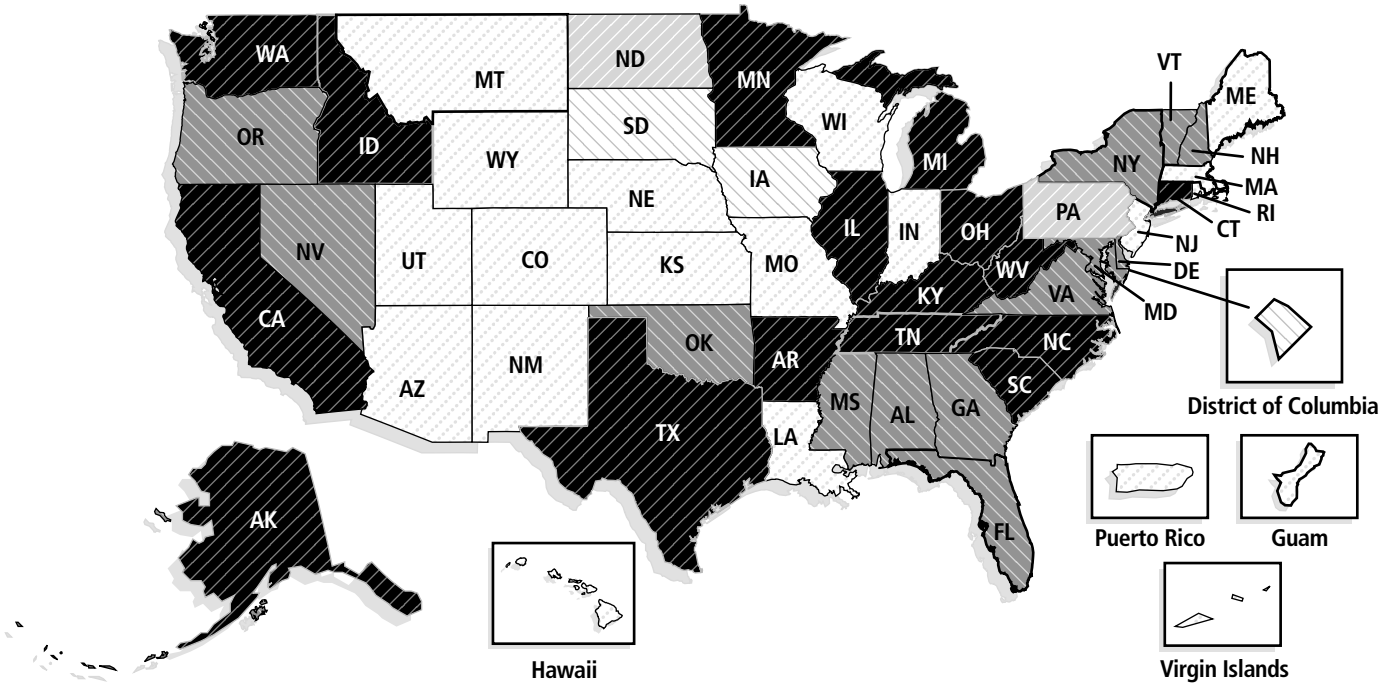
Title II of the HEA requires states to implement teacher preparation program accountability measures and establish criteria for assessing teacher preparation programs. There are 1,323 approved teacher education institutions across all states and outlying areas (NASDTEC, 2004). States are responsible for monitoring these schools and providing assistance to programs that do not meet state performance criteria. The HEA Title II reporting system contains information on the processes used by states in reviewing the quality of teacher preparation programs. Many states incorporate the criteria of national organizations into their state criteria for assessing teacher preparation programs. Many states use existing

Figure 6. **Percentage of classroom teachers on waivers, by school subject and level: 2003-04**



SOURCE: U.S. Department of Education, Higher Education Act Title II Reporting System, 2004.

Figure 7. **States with emergency and temporary licenses, by renewal status: 2004**



All temporary and emergency licenses are renewable

Arizona
Colorado
Guam
Hawaii
Indiana
Kansas
Louisiana
Maine
Massachusetts
Missouri
Montana
Nebraska
New Jersey
New Mexico
Puerto Rico
Rhode Island
Utah
Virgin Islands
Wisconsin
Wyoming

Total: 20

At least one emergency or temporary license is renewable

Alaska
Arkansas
California
Connecticut
Idaho
Illinois
Kentucky
Michigan
Minnesota
North Carolina
Ohio
South Carolina
Tennessee
Texas
Washington
West Virginia

Total: 16

No emergency or temporary licenses are renewable

Alabama
Delaware
Florida
Georgia
Maryland
Mississippi
Nevada
New Hampshire
New York
Oklahoma
Oregon
Vermont
Virginia

Total: 13

Not specified

North Dakota
Pennsylvania

Total: 2

No emergency or temporary licenses reported

District of Columbia
Iowa
South Dakota

Total: 3

NOTE: For purposes of this figure, the term "state" refers to the 50 states, the District of Columbia, Puerto Rico and outlying areas.

SOURCE: U.S. Department of Education, Higher Education Act Title II Reporting System, 2004.

program approval and accreditation processes. Some states, for example, Louisiana, have created and are administering their own system of accreditation, while others have adopted nationally recognized standards.

The accreditation process regardless of the reviewing body, has multiyear review cycles to allow for identifying problem areas and implementing corrective action. The review process varies across states, though most encompass similar criteria, including onsite visits. These criteria frequently include:

- Teacher candidate performance, as demonstrated through both formal and informal assessments of knowledge and skills;
- Professors' qualifications, performance and curricula used;
- Program or unit capacity, including facilities, student support mechanisms and resources;
- Programs' use of data to improve continuously the program of study for future teachers; and
- Adherence to an over-arching model of standards.

In 2004, 50 states, up from 48 in 2002, reported implementing criteria for assessing program performance. A promising trend in the program review process is the inclusion of teacher assessment data as one element of the evaluation. In 2004, 33 states, up from 25 in 2002, included assessment data in the form of pass rates in their criteria. Other indicators of teacher knowledge and skills are included in the criteria for 51 states, an increase from the 46 reporting in 2002.

Another development in the review process as part of the NCLB-driven move to evidence based, value-added evaluation, some states, such as Florida, North Carolina and Tennessee use (or the systems are being developed to use) student achievement outcomes associated with teachers and their preparation programs to assess the performance of the teacher preparation providers.

In their annual reports to the Department, states provide detailed information about any program under review. Programs that do not meet state requirements may be classified in two categories: at-risk of being low performing or low performing. These schools receive technical assistance from the state that is designed to improve their programs and help the school meet state requirements.

In 2001, the first year of reporting, the number of "at risk" or "low performing" programs was low because states were still putting the standards and criteria into place. This number increased to 25 in 2003. In 2004, states reported a decrease, with the number of institutions designated as low performing dropping down to 20. However, insufficient information was reported to determine the cause for the change. Table 5 lists institutions with programs that were designated at-risk or low performing in 2004.

Jackson State University (JSU) in Mississippi and the University of Maryland-Eastern Shore are two teacher preparation programs that illustrate the value of the state oversight and technical assistance processes. The University of Maryland-Eastern Shore was designated as low performing in 2003, and JSU was designated as at-risk in 2002, but the steps they have taken, along with support from their states, are showing positive results (see sidebar, p. 46).

Table 5. **At-risk and low-performing institutions, by state: 2004**

State	Institution name	Program name	Program type	Date designated
Florida	Bethune-Cookman College	English (grades 6-12), Bachelor's	Low Performing	9/27/04
	Florida A&M University	English (grades 6-12), Bachelor's	Low Performing	9/27/04
Georgia	Fort Valley State University	All Preparation Programs	—	1/1/04
Illinois	Illinois College	Educational Unit	At Risk	3/20/03
	University of Chicago	Educational Unit	At Risk	6/17/03
	Blackburn College	Educational Unit	At Risk	6/17/03
Indiana	Calumet College of Saint Joseph	Teacher Education	At Risk	12/17/03
Kansas	Haskell Indian Nations University	School of Education	Low Performing	7/8/04
	Fort Hays State University	College of Education	At Risk	8/12/03
	Wichita State University	College of Education	At Risk	1/14/03
	Sterling College	Department of Education	At Risk	6/10/03
Kentucky	Kentucky State University	Entire Program	At Risk	9/20/04
	Union College	Entire Program	At Risk	9/20/04
Louisiana	Southern University - New Orleans	Teacher Preparation Programs	At Risk	4/7/04
Maine	Husson College	Teacher preparation	At Risk	12/10/03
New York	Marymount Manhattan	Teacher Prep (all)	At Risk	4/1/02
	City University of New York - Medgar Evers College	Teacher Prep (all)	At Risk	4/1/02
	Pratt Institute	Teacher Prep (all)	At Risk	4/1/03
North Carolina	Livingstone College	Teacher Education	Low Performing	9/2/04
Tennessee	Tusculum College	Teacher Education Program	At Risk	8/27/04

— Data not available.

NOTE: For purposes of this table, the term "state" refers to the 50 states, the District of Columbia, Puerto Rico and outlying areas.

SOURCE: U.S. Department of Education, Higher Education Act Title II Reporting System, 2004.

State Reporting on Alternative Routes to Teacher Certification

The HEA Title II accountability provisions require states to report on their approved alternative route programs to teacher certification and to provide amplifying information, including for whom the program is targeted to prepare. A total of 46 states report they are implementing alternative routes to teacher certification. While this number has remained constant over time, there have been changes in which states have approved alternative routes to teacher certification. In 2004, Florida, Montana and the Virgin Islands reported they had approved their first or additional alternative route programs to teacher certification. Additionally, 18 states indicated they are considering or have proposed additional alternative routes to teacher certification. Figure 8 displays the number of states implementing alternative routes to

teacher certification in 2004. Montana is one of these states (see sidebar, next page).

Table 6 shows the alternative routes to teacher certification reported in states' most recent annual submissions and indicates whether alternative route graduates are required to pass the same assessments as graduates from traditional programs. In 2004, 37 states required the same assessments for participants coming through both traditional and alternative routes: Alabama, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Hawaii, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, South Carolina, Tennessee, Texas, Vermont, Virginia, Washington and Wisconsin plus Puerto Rico and the Virgin Islands.

The Department of Education, under the Transition to Teaching program, provides five-year grants to institutions, school districts and states to support recent college graduates, mid-career professionals and paraprofessionals desiring to enter the teaching workforce.

Technical Assistance

Jackson State University, Jackson, Miss., demonstrated a comprehensive, five component, intervention model partnership program. Significant and sustainable improvements were realized through the partnership's involvement of all constituents of teacher education in the target areas, collaborating jointly to plan innovative and creative strategies to help K-12 students to maximize their learning. Additionally, the partnership created integrated strategies to attract and recruit new teachers; prepare prospective teachers for certification examinations (Praxis); as well as retain teachers through retraining and supporting the continued professional development of administrators and other educators. The five component, comprehensive change process included: (1) Teacher preparation curricular revisions with preparation for certification examinations; (2) Research-based professional development; (3) Teacher recruitment; (4) Technology enhancement; and (5) School administrator leadership training. One of many provisions of the project included hiring consultants to offer students on campus five workshops a year on the Praxis I, a basic skills assessment. The workshops are offered on weekends over a four-hour time period and cover test-taking strategies in reading, math and writing essays with mock testing. Also, Praxis consultants worked with JSU faculty to determine the extent to which courses in the education school and other colleges could be better aligned with the content of Praxis II, content-specific assessments. Faculty also sat for the Praxis to get a first hand look at the content. These conversations led to revisions in the content and sequencing of the curriculum.

At the University of Maryland-Eastern Shore, a full-time staff member was hired to help students improve their test-taking skills, especially with the Praxis. States such as Maryland are providing targeted support to at-risk and low-performing programs by meeting on site with faculty and providing technical assistance to program leaders on the program standards and how to meet them.

Two grant competitions have been held. An evaluation of the 2002 cohort of 94 grantees, including data at the program and participant levels will become available in 2006. This information will help to provide an additional perspective on effective features of alternative route programs to teacher certification.

In reporting alternative route to teacher certification data under HEA Title II, states provide descriptions of their alternative route programs, rather than specific projects. For example, under umbrella programs such as Troops-to-Teachers or postbaccalaureate programs, individual projects conducted at postsecondary institutions or school districts are likely to differ somewhat from one another. It is important to remember this distinction when reviewing other materials on the number of alternative route programs to teacher certification.

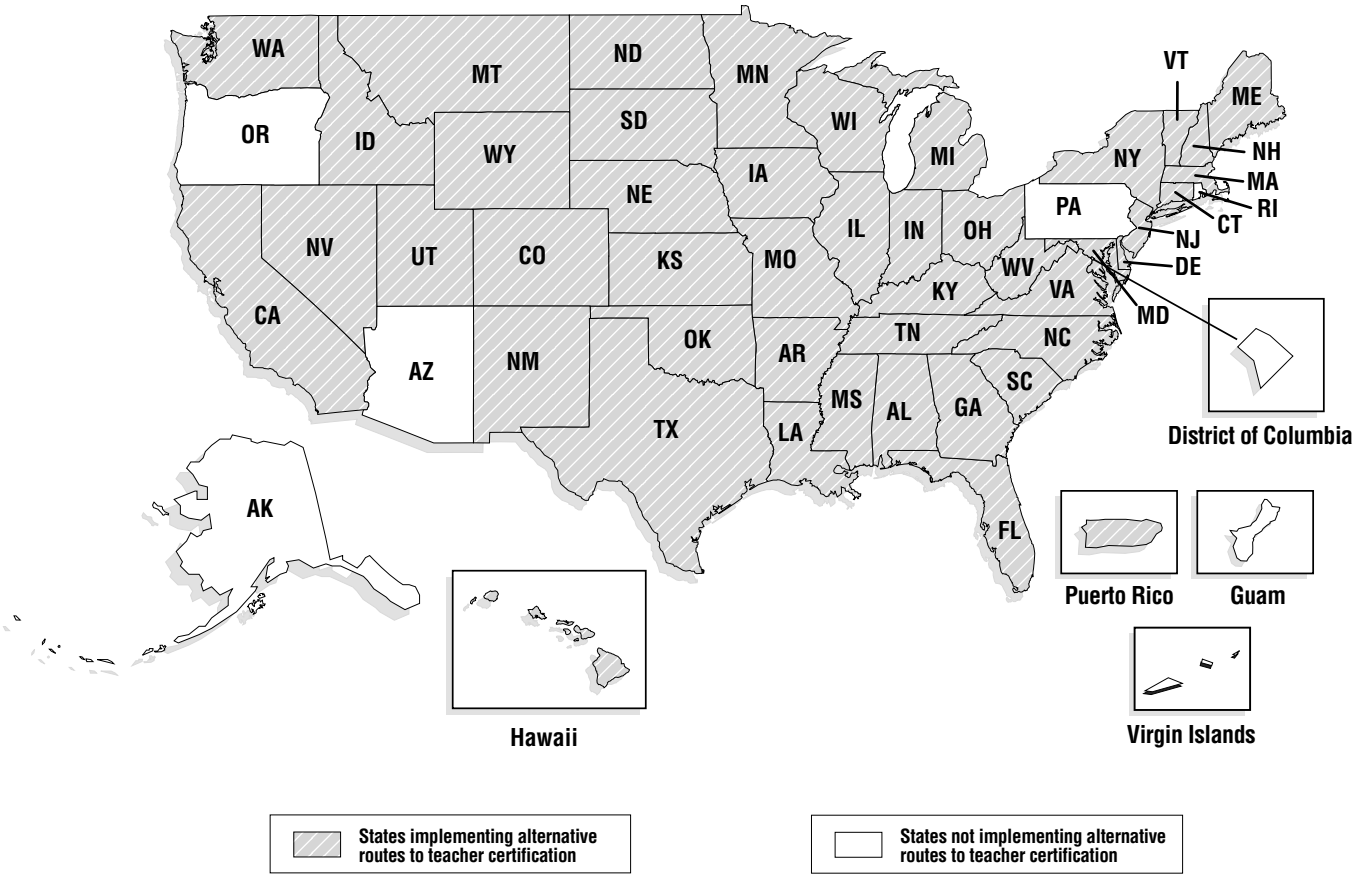
For example, as described in Chapter 2, the National Center for Alternative Certification (NCAC) is another source of information for alternative preparation programs. NCAC, which was created in 2003 through a Department grant to its sister organization, the National Center for Education Information (NCEI), is a national resource center that publishes profiles of existing alternative routes and provides informational assistance to individuals seeking entry into the teaching profession. The Department's grant to NCEI was to establish the NCAC as the comprehensive and independent source of information about alternative routes to teacher certification. As part of its research, NCAC is currently collecting data on alternative route program participants and has created a system to classify the variety of national, state and district-supported alternative routes to certification. However, NCAC uses a different approach for collecting data on these programs than does HEA Title II. NCAC collects alternative route to teacher certification data at the site-specific level. As a result, there is substantial disparity in the number of programs reported: HEA Title II reports 96 routes, compared with more than 600 reported by NCAC.

As the number and variety of alternative route programs to teacher certification have increased, a need developed for the systematic inventorying of these programs. The NCAC system provides a common reference point for evaluating and discussing programs. For example, NCAC categorized alternative routes to teacher certification based on the candidate's experience and qualifications and other factors. For more information, including a complete listing of the classification system, visit the NCAC Web site (http://www.teach-now.org/).

Northern Plains Transition to Teaching

The Northern Plains Transition to Teaching (NPTT) program at Montana State University-Bozeman (MSU) has developed a program to provide well-prepared educators to meet the hiring needs of secondary rural schools in Montana, Wyoming and South Dakota. The program recruits adults who hold baccalaureate degrees in the subject they wish to teach. Using a distance education model, the program requires 18 course credits and a supervised, year-long paid internship. Participants are placed in high-need school districts in the states of Montana, South Dakota or Wyoming. Experienced mentor teachers, an online help center and regular cohort meetings all provide support to participants.

Figure 8. **States implementing alternative routes to teacher certification: 2004**



NOTE: For purposes of this figure, the term "state" refers to the 50 states, the District of Columbia, Puerto Rico and outlying areas. This map illustrates implementing alternative routes to teacher certification. Additional states have approved routes to teacher certification.

SOURCE: U.S. Department of Education, Higher Education Act Title II Reporting System, 2004.

Table 6. **Characteristics of alternative routes to teacher certification, by state: 2004**

State	Alternative route	Is practice teaching required?	Same assessments used for traditional route certification	Other assessments	Is the route supported by a national organization?
Alabama	Alternative Class A [Master's Level]	Yes	Yes	No	No
	Baccalaureate Level	No	Yes	No	No
	Preliminary	No	Yes	No	No
Arkansas	Master of Arts in Teaching (MAT)	Yes	Yes	No	No
	Non-traditional Licensure Program (NTLP)	No	Yes	No	No
California	CCTC Alternative Route—SB 57 Private School Experience	No	Yes	No	No
	District Intern Program	Yes	Yes	No	No
	Individualized Intern Certificate	Yes	Yes	No	No
	Troops-to-Teachers	NA	NA	NA	NA
	University Internship	Yes	Yes	No	No
Colorado	Alternative Teacher Licensing Progam and Teacher in Residence Programs	No	Yes	No	No
Connecticut	Alternate Route to Teacher Certification I (ARC I)	Yes	Yes	No	No
	Alternate Route to Teacher Certification II (ARC II)	Yes	Yes	No	No
Delaware	Alternative Routes to Certification (ARTC)	No	Yes	Yes	No
	Master of Arts in Teaching with Initial Certification	Yes	Yes	Yes	No
	Master's Program in Elementary or Middle Level Education	Yes	Yes	No	No
Florida	Alternate Certification-Teacher Education Institutes	No	Yes	Yes	No
	State-Approved, Competency-Based Alternative Certification Program Reference: Section 1012.56(7)(a), Florida Statutes (2004)	Yes	Yes	Yes	No
Georgia	Georgia Alternative Preparation Program called Georgia TAPP Program	No	Yes	Yes	No
	Postbaccalaureate Program	No	Yes	Yes	No
Hawaii	Respecialization in Special Education (SPED/RISE)	Yes	Yes	Yes	No
Idaho	Alternate Route Program	No	No	No	No
Illinois	Alternative Certification—105 ILCS 5/21-5b	Yes	Yes	Yes	Yes
	Alternative Route to Administrative Certification 105 ILCS 5/21-5d	NA	Yes	Yes	No
	Alternative Route to Teacher Certification 105 ILCS 5/21-5c	Yes	Yes	Yes	No
	Illinois Teacher Corps 105 ILCS 5/21-11.4	Yes	Yes	Yes	No
Indiana	Transition to Teaching	Yes	Yes	No	No
Iowa	Teacher Intern Program (approved in 2002)	Yes	No	No	No
Kansas	Innovative and Experimental Programs	No	Yes	No	No
	Restricted Teaching License	No	Yes	No	No
	Transition to Teaching	No	Yes	No	NA
Kentucky	Adjunct Instructor Certification	No	No	No	No
	College Faculty Certification	No	No	No	No
	Exceptional Work Experience Certification	No	No	No	No
	Local District Training Program	No	Yes	No	No
	University-Based Alternative Certification	No	Yes	No	No
	Veterans of the Armed Services	No	Yes	No	No

Table 6. **Characteristics of alternative routes to teacher certification, by state: 2004** *continued*

State	Alternative route	Is practice teaching required?	Same assessments used for traditional route certification	Other assessments	Is the route supported by a national organization?
Louisiana	Master's Degree Program	Yes	Yes	No	No
	Non-Master's Degree Program	Yes	Yes	No	No
	Practitioner Teacher Program	Yes	Yes	No	Yes
Maine	Transcript Analysis	Yes	Yes	No	No
Maryland	Resident Teacher Program (RTC) as described in COMAR 13	No	Yes	No	Yes
Massachusetts	Route Two	Yes	Yes	No	No
	Route Three	Yes	Yes	No	No
	Route Four	Yes	Yes	No	No
	Route Five	Yes	Yes	No	No
Michigan	Model Process and Standards for Michigan's Alternative Routes to Teacher Certification (MARTC)	Yes	Yes	No	No
	The Limited License to Instruct	Yes	Yes	No	No
	Troops-to-Teachers	Yes	Yes	No	No
Minnesota	The Collaborative Urban Educator Program (CUE)	Yes	Yes	No	No
Mississippi	Alternate Route Entry Level Administrator License	No	Yes	Yes	No
	Master of Arts in Teaching Program (MAT)	Yes	Yes	No	No
	Mississippi Alternate Path to Quality Teachers (MAPQT)	Yes	Yes	No	No
	The Teach Mississippi Institute	Yes	Yes	No	No
Missouri	Innovative and Alternative Professional Education Programs	NA	Yes	No	No
	Temporary Authorization Certificate	No	Yes	Yes	No
Montana	Montana and High Plains Troops-to-Teachers	No	No	No	No
	Northern Plains Transition to Teaching	No	No	No	No
	Teaching Endorsement Internship Program	NA	NA	NA	No
Nebraska	Transitional Teaching Certificate	Yes	Yes	No	No
Nevada	Nevada Administrative Code 391.057 Conditional Licensure	No	Yes	No	No
New Hampshire	Alternative 3a: Competency-Based Certification for Candidates Experienced in Endorsement Areas	No	Yes	Yes	Yes
	Alternative 4: Job-Embedded Option for Critical Shortage Areas, Vocational Education, and Business Administrator	No	Yes	No	Yes
	Alternative 5: Job-Embedded Option for Content Majors in All Teaching Areas Except Special Education and Vocational Education	No	Yes	No	Yes
New Jersey	Alternative Pathway to Certification-MAT Option	Yes	Yes	No	No
	Provisional Teacher Program - Alternate Route. Requirements for this program can be found in N.J.A.C 6A:9-8.1	Yes	Yes	No	Yes
New Mexico	Three Year Alternative License—College or University Program	Yes	Yes	No	No
	Three Year Alternative License—Post Secondary Course work or Portfolio Route	Yes	Yes	No	Yes
New York	Alternative Teacher Preparation Program—Transitional B Certificate	Yes	Yes	No	No
	Transcript Evaluation	Yes	Yes	No	No

Table 6. **Characteristics of alternative routes to teacher certification, by state: 2004** *continued*

State	Alternative route	Is practice teaching required?	Same assessments used for traditional route certification	Other assessments	Is the route supported by a national organization?
North Carolina	Regional Alternative Licensing Centers—established in April 2002	No	Yes	No	No
North Dakota	Interim licensure clinical practice option	No	No	Yes	No
Ohio	Conditional Permit	No	Yes	Yes	No
	ORC, 3319.26 Alternative Educator License	No	Yes	No	No
Oklahoma	Oklahoma Alternative Placement Program	No	Yes	No	No
Puerto Rico	Alternative Route to Teacher Certification	Yes	Yes	No	No
South Carolina	Program of Alternative Certification for Educators (PACE)	No	Yes	Yes	No
	Alternative Certification	Yes	No	No	No
Tennessee	Alternative A License	Yes	Yes	No	No
	Alternative C License	Yes	Yes	No	No
	Alternative E License	Yes	Yes	No	No
Texas	Alternative Route to Certification	Yes	Yes	No	No
Utah	Alternative Routes to Licensure (ARL)	No	No	Yes	No
	Career & Technology Education (CTE) Alternative Routes to Licensure (ARL)	No	No	No	No
Vermont	License by Evaluation (Peer Review)	Yes	Yes	Yes	No
Virgin Islands	Virgin Islands Alternative Route to Teacher Certification (VARTC)	No	Yes	Yes	No
Virginia	Alternative Licensure Program	No	Yes	No	No
	Career Switcher Alternative Route to Licensure Program	Yes	Yes	No	No
Washington	Route 1	Yes	Yes	Yes	No
	Route 2	Yes	Yes	Yes	No
	Route 3	Yes	Yes	Yes	No
West Virginia	Alternative Programs for the Education of Teachers	NA	No	No	NA
Wisconsin	Licenses Based on Equivalency	Yes	Yes	No	Yes
	Experimental and Innovative Programs	Yes	Yes	No	Yes
Wyoming	Northern Plains Transition to Teaching	Yes	NA	No	No
	Portfolio	Yes	No	No	No

NOTE: NA means not applicable. For purposes of this table, the term "state" refers to the 50 states, the District of Columbia, Puerto Rico and outlying areas.

SOURCE: U.S. Department of Education, Higher Education Act Title II Reporting System, 2004.

CHAPTER 4

The Federal Contribution To Teacher Quality

The federal government plays a key role in making sure that all children have access to high-quality teaching. While states and local school districts provide the most support for teacher quality, the federal government has been instrumental in shaping policy, conducting research and funding programs to support teachers through all phases of their careers. In this chapter, we highlight the Department's major contributions to teacher quality since last year's report.

Teacher-to-Teacher

The Department recognizes teachers' desires to be resources for one another, working together to enhance the profession as a whole. Last year, the Department embarked on a comprehensive effort to learn what teachers need in terms of professional development and to provide the support directly to teachers. In the summer of 2004, the Department provided opportunities for teachers to meet and share research-based practices though the Research-to-Practice Summit and a series of teacher roundtables. After listening to teachers, the Department launched a bold new professional development program—the Teacher-to-Teacher initiative. This initiative includes three components:

- Workshops on research-based practices in reading and mathematics;
- E-Learning opportunities to promote professional development; and
- American Stars of Teaching.

Workshops

During the summer and fall of 2004, the Department sponsored a series of Teacher-to-Teacher workshop sessions on research-based practices in reading and math strategies and how teachers can use data to inform classroom instruction. Active classroom teachers, many of whom were instrumental in turning around low-performing schools, led the workshop sessions. The workshops were designed to showcase a model of high-quality professional development based on the principles of NCLB. Comprehensive 2 ½-day summer workshops were held across the nation in seven sites. Math workshops were held in October in Arkansas and Washington state, and the reading workshops were held in West Virginia and Wisconsin. Workshops also included sessions on school leadership, NCLB, and teaching methods such as differentiated instruction, providing feedback, and developing standards-based report cards. Summer workshops in 2005 will be hosted in Cincinnati, Ohio; Phoenix, Ariz.; Minneapolis, Minn.; Tampa, Fla.; San Jose, Calif.; and Bethesda, Md.

The E-Learning Initiative

Increasingly states are offering teachers the chance to meet license renewal and professional development goals through self-paced online learning. The Department of Education has joined forces with the Panhandle Area Education Consortium (PAEC) to support teachers who wish to enroll, complete a

course, take an assessment and complete follow-up activities. The workshop's modules were recorded during the Teacher-to-Teacher workshops. Teachers now have access to 23 digital workshops on the five essentials in reading instruction, math content areas and turning data into information. Every course offers the following components: overview, course component description, video note-taking guide (PowerPoint presentation), video, course assessment, course follow-up activities, course handouts, principal's implementation checklist, professional development coordinator feedback form and additional resources.

The Department designed the workshop contents and structure with state professional development requirements in mind. Teachers are encouraged to check with their own state's credentials and evaluation systems to determine if they can obtain credit for taking one of these courses. Approximately 10 hours are required to watch the video and complete the accompanying follow-up activities.

American Stars of Teaching

The secretary of education identifies teachers in local communities across the country whose exemplary practices have resulted in raising student academic achievement for all of their students. One teacher is recognized from each of the 50 states and the District of Columbia each year. Department officials personally visit each teacher to give him or her a prestigious and well-deserved American Stars of Teaching award and to offer personal congratulations. The experiences of the American Stars of Teaching can benefit teachers throughout the nation who may be facing similar challenges in the classroom with improving student achievement.

In spring of 2005, the Department will launch its second year of the American Stars of Teaching effort. Teachers wishing to nominate themselves or their colleagues as an American Star of Teaching must complete the online nomination form at http://www.teacherquality.us/.

Research on Teacher Quality and Preparation

There is much yet to learn about teacher preparation and quality, and the Department is investing considerable resources on research in these areas. The Institute of Education Sciences (IES) within the Department of Education is supporting a number of research and evaluation studies on teacher quality that will provide valuable information for the preparation of effective teachers. In 2003 and 2004, IES funded 11 research grants on teacher quality:

- Six projects for the study of professional development in early reading, two of them with preschool teachers and students;
- Two projects for the study of professional development in teaching middle school mathematics; and
- Three projects for the assessment of the validity of teacher tests for licensure, i.e., the predictive value of teacher test scores in determining student achievement.

In addition to the 11 research grants, IES is supporting six evaluation studies that will provide valuable information for expanding our understanding of what makes effective teacher preparation programs and how to strengthen current teacher preparation programs. An overview of each of the evaluation studies follows.

- The Impact Evaluation of Teacher Preparation Models. The purpose of this study is to assess

the effects of different types and amounts of teacher training on student achievement by examining the association between different teacher preparation methods and different teaching practices (e.g., curriculum coverage, pedagogical practices and classroom management). Pairs of new teachers in the same grade in 80 schools will be formed, representing traditional and alternative route preparation. This four-year study involving the collection of student records, pretest and posttest scores and measures of teacher practice will be completed in September 2007.

- A Study of Teacher Preparation Programs in the United States. This study takes a broad look at what is known and what can be known about participants in teacher preparation programs and the type of instruction they receive. The study will examine the required course work and experiences in reading and mathematics in all types of teacher preparation programs. Researchers also will explore and make recommendations regarding future data collection that would provide information about the content knowledge, pedagogical competence and effectiveness of graduates from teacher education programs and teachers trained in alternative certification programs. The results of this study are scheduled to be reported to Congress in the winter of 2007.
- Study of Teacher Preparation in Early Reading Instruction. This study, to begin in spring 2005, will examine the extent to which the course work in reading instruction offered by education schools is aligned with the teacher knowledge necessary to implement the five essential components of reading instruction, as identified by the National Reading Panel. Using course catalogs from a sample of approximately 100 schools of education, the set of required course syllabi to be included will be identified and then analyzed.
- Evaluation of Teacher Certification by the National Board for Professional Teaching Standards (NBPTS). The purpose of this study is to support the development of a framework to evaluate the effects of NBPTS certification. It will specifically address the question: To what extent is the NBPTS certification model a cost-effective method of improving teacher quality? The Title II reporting system primarily is concerned with the initial certificate that teachers obtain after completing a preparation program. Therefore, there has been little discussion in the secretary's reports about advanced certification provided by application to the NBPTS. Yet, many states provide incentive bonuses for in-service teachers who seek this level of review of their qualifications. Organizations such as the Milken Family Foundation and the National Commission for Teaching and America's Future are turning their attention to recognizing the progression of expertise that teachers build over a number of years through practice, assessment and professional development. Therefore, this is a timely effort.
- Teacher Induction Impact Evaluation. This study's purpose is to examine the effectiveness of a teacher induction program in increasing retention rates and affecting teacher practices among novice elementary school teachers. Teachers who participate in this high-quality program will be compared with those who received induction support through "business as usual" support in their district. Teacher background information such as education and cognitive and verbal ability test scores will be used to assess the program. The study will be completed in 2009.

- The Impact of Professional Development Models and Strategies on Teacher Practice and Student Achievement. This study is designed to evaluate the effects of two professional development approaches on improving early reading. The approaches are: (a) a five-day summer institute with three days of follow-up throughout the school year and (b) institutes and follow-up days plus coaching by an in-school reading specialist trained in a particular coaching approach. This five-year study will be completed in September 2008.

"The No Child Left Behind *law committed this nation to a bold vision for a future in which all children, regardless of race, income or native language, have the chance to succeed in school and life. The law projected a 12-year horizon for every child across this nation to read and do math at grade level."*

—Secretary Margaret Spellings

Funding Teacher Quality Initiatives

As a nation, we have work left to do to ensure a highly qualified teacher in every elementary, middle and high school classroom by 2006. The United States spends more per pupil per year than any country except Switzerland, and we have every right to expect the best education for all of our children. There is no question that teaching is a tough job, but the rewards are great. America's demand for quality education must be accompanied by a strong commitment to support its teachers. Our future depends on it.

To make this bold vision a reality, the federal government provides support to states, school districts, institutions of higher education and others. Department of Education discretionary funding makes up about 8 percent of the $514 billion that the United States spends annually on elementary and secondary education. Federal dollars are targeted to innovative programs that show promise and programs that have produced results. President George W. Bush has proposed a budget for fiscal year 2006 that continues to build upon the momentum of progress spurred by NCLB: the nearly $1.5 billion High School Initiative would hold high schools accountable for teaching all students and provide timely intervention for students not learning at grade level. This new initiative will help to ensure all high school graduates are prepared for college or employment.

States, school districts and schools are still doing the hard work of implementing NCLB and the early returns are promising. The proposed budget continues to support these efforts by requesting increased funding for Title I Grants to Local Education Agencies and Special Education Grants to States.
In the area of meeting the highly qualified teacher challenge, the president has proposed to continue the high level of support for Improving Teacher Quality State Grants by funding the program at $2.92 billion. These grants help states ensure that all teachers of core academic subjects are highly qualified, as required by NCLB, and are able to teach effectively so that every student achieves high academic standards. In addition, the president has proposed $500 million for a new Teacher Incentive Fund to encourage performance-based compensation systems that would change the way school districts reward teachers. Other highlights of the proposed budget include:

- $1.24 billion for a High School Intervention initiative to strengthen high school education and provide specific interventions, including assessment-based performance plans for each student, designed to improve the academic achievement of students at greatest risk of not meeting challenging state academic standards and not completing high school.
- $250 million to help states develop and implement new High School Assessments in reading or language arts and mathematics. The proposal would provide state formula grants to add, by the 2009-10 school year, annual assessments at two additional high school grades. The request also includes a $22.5 million increase for the National Assessment of Educational Progress to implement state-level assessments in reading and mathematics at the 12th grade in 2007.
- $200 million for the Striving Readers program (a $175 million increase), funded for the first time in fiscal year 2005, to significantly expand the development and implementation of research-based interventions to improve the skills of teenage students who are reading below grade level.
- $269 million for the Mathematics and Science Partnership program, which includes $120 million for a new Secondary Education Mathematics Initiative that would provide competitive grants to accelerate the mathematics learning of secondary-school students. Current partnerships focus on developing rigorous mathematics and science curricula, distance learning programs and incentives to recruit college graduates with degrees in math and science into the teaching profession.
- A $22 million increase for the Advanced Placement program to expand the availability of Advanced Placement and International Baccalaureate programs in schools with large populations of low-income students and to train teachers for those programs.
- $500 million for a new Teacher Incentive Fund, which would provide formula grants to reward effective teachers and create incentives to attract qualified teachers to high-need schools, as well as competitive grants to design and implement performance-based compensation systems that change the way school districts pay teachers.
- $164 million for Research, Development and Dissemination to maintain support for ongoing initiatives critical to the success of the NCLB Act, including research on reading comprehension, mathematics and science education, teacher quality and cognition and learning in the classroom, as well as a new program of field-initiated evaluations of promising education products and approaches to find out what works in the classroom.
- A provision to make permanent the expanded loan forgiveness provisions of the *Taxpayer-Teacher Protection Act of 2004,* which forgive up to $17,500 in student loans for highly qualified math, science and special education teachers serving low-income communities.
- $90.6 million for Special Education Personnel Preparation to ensure that there are adequate numbers of personnel with the skills and knowledge necessary to help children with disabilities succeed educationally. Program activities focus on both meeting the demand for personnel to serve children with disabilities and improving the qualifications of these personnel, with particular emphasis on incorporating knowledge gained from research and practice into training programs.

- $14.8 million to support the Troops-to-Teachers program. The Troops-to-Teachers program administered by the Department of Defense program helps train retiring military personnel to teach in high-poverty school districts.
- $44.9 million for Transition to Teaching grants to recruit and retain highly qualified mid-career professionals. This program supports alternative routes to teacher certification and other approaches to enable mid-career professionals and recent college graduates to transition to careers in teaching. These grants train, place and support teachers in high-need schools.
- $119 million for Teaching American History. This program makes competitive grants to school districts for professional development to strengthen the teaching of traditional American history as a separate subject in elementary and secondary schools.
- $8 million for Advanced Credentialing. This program supports the development of advanced credentials based on the content expertise of master teachers. Funds also support related activities to encourage and support teachers seeking advanced credentials. The 2006 request would support the American Board for the Certification of Teacher Excellence's development of an Initial Certification and a Master Certification to give states and districts more options for improving teacher quality and, most importantly, raising student achievement.
- $14.7 million for Early Childhood Educator Professional Development grants. This program focuses on professional development, especially in teaching prereading skills to young children, for early childhood educators and caregivers working in high-poverty communities.
- Expanding the above-the-line tax deduction for qualified out-of-pocket classroom expenses incurred by teachers from $250 to $400.

The overall 2006 president's budget request—including both discretionary and mandatory funds—combines fiscal discipline with strong, continued commitment to NCLB and longstanding priorities, such as Title I Grants to LEAs and Special Education Grants to States. Additionally, many of the federally funded education programs provide great flexibility for states, school districts and other grantees to initiate a variety of activities that will meet the needs of their teachers and students. It is only through this strong federal and local partnership that we can ensure a quality education for all of the nation's students.

Looking Forward

During the next four years, the United States will realize many of the promises of the *No Child Left Behind Act*. More children than ever before will be taught by a teacher who meets the federal standards as highly qualified. These teachers will have solid content knowledge and essential 21st century knowledge and skills, including the ability to use research-based methods appropriate for their content expertise. They will be trained to teach diverse learners in high-need schools and know how to interpret data for making informed instructional decisions. These changes will come about, in part, by making teacher education a university-wide commitment; strengthening, broadening and integrating field experiences throughout the teacher preparation program; strengthening and expanding partnerships among teacher education institutions and state and local school

districts; and by creating quality mentoring and support programs to help teachers during the first few critical years of teaching and to maintain strong professional development throughout their careers.

Other changes also must occur over the next four years. Much of the work of *No Child Left Behind* has focused on our elementary and middle schools. America must do more to prepare high school students for graduation, especially those most at risk of dropping out. Higher education is key to success in the 21st century. The international economy of the 21st century is competitive, and, as our children become young adults, they must have the skills developed through a strong education to keep our nation competitive.

We must begin by improving the skills of our high school teachers. Substantial reform is required to strengthen our high school education programs and provide specific interventions that meet individual student needs, particularly those at-risk. America can no longer afford to lose 11 percent of its high school students before they graduate. Further, a study by the Manhattan Institute found that only 32 percent of students who exit high school are prepared for college.

Every child regardless of race or economic background must leave high school with the knowledge and skills to succeed in college or in the modern workplace. To help solve this problem, we must expand Advanced Placement and International Baccalaureate programs in high schools with large numbers of disadvantaged students. Further, we must support dual-enrollment credit transfers for high school students taking college-level courses. Dual enrollment encourages students, particularly those with disadvantaged backgrounds, to enter college.

We also must give our high school students the vision to see where higher education can take them. Our world today is defined less by where we live and more by what we know. To learn the skills they will need to lead in this new technologically advanced world means making higher education affordable for all. First, we must provide consumers with useful information about higher education institutions. States and postsecondary institutions must adopt compatible, connected, data-based systems. One of the biggest postsecondary education challenges is the lack of compatible and comprehensive measurements—the kind of information parents have come to expect from K–12 schools. Parents today see a mosaic of fine higher education institutions, each with wonderful qualities but find it difficult to piece the puzzle together. To increase the number of students attending colleges and universities, as well as trade schools and career colleges, we must ensure that high school students and their parents have information about the multitude of resources, including federal Pell Grants and student and parent loans, to help them pay for postsecondary education.

If we do these things, we will help the next generation of Americans realize the long-held promise of higher education and secure the future for themselves and their children in the 21st century.

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APPENDIX A

Supplementary Data Tables

State	Initial certificate name	Subject area bachelor's	Pedagogy courses	Credit hour requirement	Minimum grade point average	Assessments	Recency of credit requirements	Other prescribed course work	Practicum or student teaching
Alabama	Class B Professional Educator	✓	✓		✓	✓		✓	✓
Alaska	Type A Regular Teacher Certificate					✓	✓	✓	✓
Arizona	Provisional Elementary (K-8)		✓	✓		✓		✓	✓
	Provisional Secondary (7-12)		✓	✓		✓		✓	✓
	Provisional Special Education (K-12)		✓	✓		✓		✓	✓
Arkansas	Initial Teaching License		✓		✓	✓		✓	✓
California	Preliminary Level I Education Specialist Instruction Credential	✓	✓	✓	✓	✓	✓		✓
	Preliminary Multiple Subject Teaching Credential	✓	✓	✓	✓	✓	✓		✓
	Preliminary Single Subject Teaching Credential	✓	✓	✓	✓	✓	✓		✓
	Professional Clear Multiple Subject Teaching Credential	✓	✓	✓	✓	✓	✓	✓	✓
	Professional Clear Single Subject Teaching Credential	✓	✓	✓	✓	✓	✓	✓	✓
Colorado	Provisional License	✓	✓			✓		✓	✓
Connecticut	Initial Educator Certificate	✓	✓	✓		✓		✓	✓
	Interim Initial Educator Certificate	✓	✓	✓		✓		✓	✓
	Interim Provisional Educator Certificate	✓	✓	✓		✓		✓	✓
Delaware	Initial License	✓			✓	✓			✓
District of Columbia	Provisional Certificate								
	Standard Certificate		✓	✓		✓		✓	✓
Florida	Temporary Certificate	✓		✓	✓			✓	
Georgia	Intern Certificate	✓	✓		✓	✓	✓	✓	✓
	Nonrenewable Certificate	✓	✓		✓	✓	✓	✓	✓
	Professional Clear Renewable Certificate	✓	✓	✓	✓	✓	✓	✓	✓
Guam	Professional I		✓	✓	✓	✓			✓
Hawaii	Hawaii Teaching License	✓	✓			✓			✓
Idaho	Early Childhood/E.C. Spec Educ Blended Certificate (Birth-Grade 3)		✓	✓		✓	✓	✓	✓
	Standard Elementary Certificate (K-8)		✓	✓		✓	✓	✓	✓
	Standard Exceptional Child Certificate (K-12)		✓	✓		✓	✓	✓	✓
	Standard Secondary School Certificate (6-12)		✓	✓		✓	✓	✓	✓
Illinois	Initial Early Childhood Certificate (Birth to Grade 3)		✓			✓		✓	✓
	Initial Elementary Certificate (Grades K-9)		✓			✓		✓	✓
	Initial Secondary Certificate (Grades 6-12)	✓	✓			✓		✓	✓
	Initial Special Certificate (K-12)		✓			✓		✓	✓
	Initial Special Certificate in Special Education (Preschool-Age 21)		✓			✓		✓	✓

State	Initial certificate name	Subject area bachelor's	Pedagogy courses	Credit hour requirement	Minimum grade point average	Assessments	Recency of credit requirements	Other prescribed course work	Practicum or student teaching
Indiana	Reciprocal All Grade Education License (K-12)	✓	✓	✓	✓	✓	✓		✓
	Reciprocal Early Childhood Education (Pre-K)	✓	✓	✓	✓	✓	✓		✓
	Reciprocal Elementary Education License (1-6, & Nondepartmentalized 7 & 8)	✓	✓	✓	✓	✓	✓		✓
	Reciprocal Junior High/Middle School Education License	✓	✓	✓	✓	✓	✓		✓
	Reciprocal Kindergarten—Primary (K-3)	✓	✓	✓	✓	✓	✓		✓
	Reciprocal Secondary License		✓	✓	✓	✓	✓		✓
	Reciprocal Senior High, Junior High & Middle School Education License (5-12)	✓	✓	✓	✓	✓	✓		✓
	Rules 2002 Inital Practitioner: Adolescence/Young Adulthood	✓	✓	✓	✓	✓	✓		✓
	Rules 2002 Initial Practitioner: Early Adolescence	✓	✓	✓	✓	✓	✓		✓
	Rules 2002 Initial Practitioner: Early Childhood	✓	✓	✓	✓	✓	✓		✓
	Rules 2002 Initial Practitioner: Middle Childhood	✓	✓	✓	✓	✓			✓
	Standard All Grade Education License (K-12)	✓	✓	✓	✓	✓	✓	✓	✓
	Standard Early Childhood Education License	✓	✓	✓	✓	✓	✓	✓	✓
	Standard Elementary Education License (1-6)		✓	✓	✓	✓	✓	✓	✓
	Standard Junior High/Middle School License (5-9)		✓	✓	✓	✓	✓	✓	✓
	Standard Kindergarten-Primary (K-3) License	✓	✓	✓	✓	✓	✓	✓	✓
	Standard Secondary License (9-12)	✓	✓	✓	✓	✓	✓	✓	✓
	Standard Senior High, Junior High/Middle School License (5-12)	✓	✓	✓	✓	✓	✓	✓	✓
Iowa	Class A License	✓	✓			✓		✓	✓
	Class B License	✓	✓			✓		✓	✓
	Class C License	✓	✓			✓		✓	✓
	Class D License	✓	✓			✓		✓	✓
	Class E License	✓	✓			✓		✓	✓
Kansas	One-Year Nonrenewable	✓	✓		✓		✓		✓
	Two-Year Exchange	✓	✓		✓				✓
	Conditional License	✓	✓		✓	✓	✓		✓
	Standard Three-Year Certificate	✓	✓		✓	✓	✓	✓	✓
Kentucky	Provisional Certificate (Intern)	✓			✓	✓	✓		✓
Louisiana	Type C or Level 1 Certificate	✓	✓	✓	✓	✓	✓	✓	✓
Maine	Provisional Certificate		✓	✓		✓		✓	✓
Maryland	Professional Eligibility Certificate		✓	✓		✓	✓	✓	✓
	Standard Professional Certificate I		✓	✓		✓	✓	✓	✓
Massachusetts	Initial License	✓	✓			✓			✓
Michigan	Provisional Certificate	✓	✓	✓		✓		✓	✓
Minnesota	Nonrenewable License (Temporary Limited License)	✓	✓			✓			✓
	Professional License	✓	✓			✓			✓
Mississippi	Class A	✓	✓	✓	✓	✓		✓	✓
Missouri	Provisional Classification	✓	✓	✓	✓	✓		✓	✓
	Initial Professional Certificate (IPC)	✓	✓	✓	✓	✓		✓	✓

State	Initial certificate name	Subject area bachelor's	Pedagogy courses	Credit hour requirement	Minimum grade point average	Assessments	Recency of credit requirements	Other prescribed course work	Practicum or student teaching
Montana	Class 2 Standard Teaching License: Elementary		✓				✓		✓
	Class 2 Standard Teaching License: Secondary	✓	✓				✓		✓
Nebraska	Temporary Certificate		✓			✓			✓
	Initial Certificate		✓	✓	✓	✓	✓	✓	✓
Nevada	Non Renewable (Initial License)	✓	✓	✓		✓			✓
New Hampshire	Beginning Educator Credential (BEC)	✓	✓		✓	✓			✓
New Jersey	Certificate of Eligibility (CE)	✓			✓	✓		✓	
	Certificate of Eligibility with Advanced Standing (CEAS)	✓	✓	✓	✓	✓		✓	✓
New Mexico	Level 1	✓	✓	✓		✓		✓	✓
New York	Initial Certificate		✓	✓	✓	✓			✓
	Provisional - Elementary Teaching Certificate (Pre-K - 6)	✓	✓	✓		✓		✓	✓
	Provisional - Secondary Academic Teaching Certificate (7-12)	✓	✓	✓		✓			✓
North Carolina	Initial License				✓	✓	✓		✓
North Dakota	Initial	✓	✓	✓	✓	✓		✓	✓
	Interim Reciprocal	✓	✓	✓	✓	✓			✓
Ohio	Provisional License		✓			✓		✓	✓
Oklahoma	School License	✓	✓	✓	✓	✓	✓	✓	✓
Oregon	Initial Teaching License		✓			✓	✓		✓
Pennsylvania	Professional Instructional Certificate	✓	✓		✓	✓		✓	✓
Puerto Rico	Regular Certification	✓	✓	✓	✓	✓	✓		✓
Rhode Island	Provisional Certificate	✓	✓	✓		✓	✓	✓	✓
South Carolina	Critical Needs Certificate	✓	✓	✓		✓	✓	✓	
	Initial Certificate	✓	✓	✓	✓	✓			✓
South Dakota	Two-Year Nonrenewable Certificate	✓	✓		✓		✓	✓	✓
	Five-Year Certificate	✓	✓		✓		✓	✓	✓
Tennessee	Apprentice Teacher License	✓	✓		✓	✓		✓	✓
	Out-of-State Teacher License	✓	✓			✓			
Texas	Texas Standard Classroom Teacher Certificate	✓	✓			✓		✓	✓
Utah	Utah Professional Educator License, Level I	✓	✓				✓	✓	✓
Vermont	Level I—Beginning Educator License	✓			✓	✓	✓		✓
Virgin Islands	Emergency								
	Professional Educator Class I Certificate	✓	✓	✓	✓	✓		✓	✓
Virginia	Provisional License	✓	✓	✓		✓			✓
	Collegiate Professional License	✓	✓	✓	✓	✓	✓		✓
Washington	Residency Certificate		✓			✓			✓
West Virginia	Initial Professional Teaching Certificate—Three Year		✓		✓	✓		✓	✓
Wisconsin	Initial Educator License		✓	✓	✓	✓		✓	✓
Wyoming	Standard Teaching Certificate	✓	✓			✓		✓	✓

NOTE: For purposes of this table, the term "state" refers to the 50 states, the District of Columbia, Puerto Rico and outlying areas.

SOURCE: U.S. Department of Education, Higher Education Act Title II Reporting System, 2004.

Appendix A2. Summary of regular route pass rates: 2002-03

State	Testing company	Summary 2002-03				
		Number of institutions[1]	Number tested[2]	Number passing	Pass rate (%)	Range (%)
Alabama	—	—	—	—	—	—
Alaska	ETS	4	275	273	99	99 - 100
Arizona	NES	12	3,187	3,049	96	89 - 100
Arkansas	ETS	16	1,145	1,091	95	86 - 100
California	ETS/NES	75	19,236	18,816	98	93 - 100
Colorado	NES	15	2,046	1,986	97	91 - 100
Connecticut	ETS	14	1,868	1,812	97	92 - 100
Delaware	ETS	4	664	649	98	87 - 100
District of Columbia	ETS	6	346	280	81	70 - 86
Florida	ETS	26	5,242	5,112	98	77 - 100
Georgia	ETS	26	2,101	1,983	94	71 - 100
Hawaii	ETS	5	433	369	85	74 - 89
Idaho	No testing	†	†	†	†	†
Illinois	NES	51	9,188	8,983	98	88 - 100
Indiana	ETS	37	4,375	4,199	96	74 - 100
Iowa	No testing	†	†	†	†	†
Kansas	ETS	21	1,823	1,785	98	89 - 100
Kentucky	ETS	24	2,508	2,351	94	75 - 100
Louisiana	ETS	18	1,780	1,753	98	90 - 100
Maine	ETS	7	602	554	92	67 - 100
Maryland	ETS	19	2,067	1,956	95	45 - 100
Massachusetts	NES	48	3,905	3,776	97	31 - 100
Michigan	NES	32	7,739	7,739	100	100 - 100
Minnesota	ETS	25	3,757	3,603	96	86 - 100
Mississippi	ETS	13	1,554	1,486	96	93 - 100
Missouri	ETS	36	3,722	3,580	96	75 - 100
Montana	No testing	†	†	†	†	†
Nebraska	—	—	—	—	—	—

State	Testing company	Summary 2002-03				
		Number of institutions[1]	Number tested[2]	Number passing	Pass rate (%)	Range (%)
Nevada	ETS	7	919	847	92	73 - 98
New Hampshire	ETS	12	588	562	96	70 - 100
New Jersey	ETS	21	3,274	3,227	99	93 - 100
New Mexico	NES	7	1,065	1,009	95	93 - 99
New York	NES	97	18,878	17,907	95	54 - 100
North Carolina	ETS	39	2,620	2,446	93	70 - 100
North Dakota	No testing	†	†	†	†	†
Ohio	ETS	48	7,022	6,542	93	82 - 100
Oklahoma	ETS/NES	18	1,850	1,781	96	82 - 100
Oregon	ETS/NES	16	2,127	2,127	100	100 - 100
Pennsylvania	ETS	81	10,231	8,994	88	43 - 100
Rhode Island	ETS	6	822	734	89	86 - 100
South Carolina	ETS	26	1,819	1,636	90	53 - 100
South Dakota	No testing	†	†	†	†	†
Tennessee	ETS	35	3,153	2,985	95	73 - 100
Texas	NES	66	12,982	11,877	91	69 - 100
Utah	No testing	†	†	†	†	†
Vermont	ETS	11	419	405	97	84 - 100
Virginia	ETS	32	2,498	2,396	96	76 - 100
Washington	—	—	—	—	—	—
West Virginia	ETS	17	1,117	1,117	100	100 - 100
Wisconsin	—	—	—	—	—	—
Wyoming	No testing	†	†	†	†	†
Guam	ETS	1	72	62	86	86 - 86
Puerto Rico	ETS	28	2,159	1,658	77	52 - 96
Virgin Islands	ETS	^	^	^	^	^
Total		1,102	153,178	145,497	95%	31-100

— Data are not available because test may not be required for certification or licensure or there may be less than 10 test takers.

† Non-testing state.

^ In the Virgin Islands, fewer than ten candidates took the Praxis I state-mandated teacher certification exam; thus, no pass rate data is reported for this period.

1 Number of institutions includes institutions with 10 or more completers taking an assessment in that area.

2 Number tested is the total number of test takers at all institutions in the state, including institutions with less than 10 completers.

NOTE: ETS is the Educational Testing Service. NES is National Evaluation Systems, Inc. For purposes of this table, the term "state" refers to the 50 states, the District of Columbia, Puerto Rico and outlying areas. Institutions in Alabama, Nebraska, Oklahoma, Tennessee, Washington and Wisconsin require applicants to pass a basic skills test as a condition of admission to a teacher preparation program. These states are not required to submit their basic skills pass rates because they do not require the assessments for certification. Oklahoma has additional tests that are required for certification. In Michigan, institutions require passing basic skills for admission; state requires passage before student teaching.

SOURCE: U.S. Department of Education, Higher Education Act Title II Reporting System, 2004.

Appendix A2. Basic skills pass rates: 2002-03

State	Testing company	Basic skills 2002-03				
		Number of institutions[1]	Number tested[2]	Number passing	Pass rate (%)	Range (%)
Alabama	—	—	—	—	—	—
Alaska	ETS	4	275	273	99	99 - 100
Arizona	NES	—	—	—	—	—
Arkansas	ETS	16	1,119	1,117	100	94 - 100
California	ETS/NES	75	19,226	19,198	100	97 - 100
Colorado	NES	—	—	—	—	—
Connecticut	ETS	12	1,156	1,153	100	98 - 100
Delaware	ETS	4	664	649	98	87 - 100
District of Columbia	ETS	6	320	278	87	81 - 95
Florida	ETS	26	5,185	5,105	98	87 - 100
Georgia	ETS	25	1,237	1,121	91	46 - 100
Hawaii	ETS	5	406	403	99	99 - 100
Idaho	No testing	†	†	†	†	†
Illinois	NES	50	9,049	9,006	100	95 - 100
Indiana	ETS	37	4,159	4,032	97	88 - 100
Iowa	No testing	†	†	†	†	†
Kansas	ETS	—	—	—	—	—
Kentucky	ETS	—	—	—	—	—
Louisiana	ETS	17	1,458	1,458	100	100 - 100
Maine	ETS	7	602	554	92	67 - 100
Maryland	ETS	19	1,989	1,961	99	75 - 100
Massachusetts	NES	48	3,882	3,818	98	54 - 100
Michigan	NES	32	6,986	6,986	100	100 - 100
Minnesota	ETS	25	3,590	3,473	97	88 - 100
Mississippi	ETS	—	—	—	—	—
Missouri	ETS	—	—	—	—	—
Montana	No testing	†	†	†	†	†
Nebraska	—	—	—	—	—	—

State	Testing company	Basic skills 2002-03				
		Number of institutions[1]	Number tested[2]	Number passing	Pass rate (%)	Range (%)
Nevada	ETS	7	836	803	96	80 - 100
New Hampshire	ETS	12	573	559	98	80 - 100
New Jersey	ETS	—	—	—	—	—
New Mexico	NES	7	1,063	1,023	96	94 - 100
New York	NES	—	—	—	—	—
North Carolina	ETS	36	2,559	2,555	100	93 - 100
North Dakota	No testing	†	†	†	†	†
Ohio	ETS	—	—	—	—	—
Oklahoma	ETS/NES	18	1,850	1,781	96	82 - 100
Oregon	ETS/NES	16	2,127	2,127	100	100 - 100
Pennsylvania	ETS	81	10,006	9,478	95	56 - 100
Rhode Island	ETS	5	22	18	82	NA
South Carolina	ETS	25	1,819	1,636	90	53 - 100
South Dakota	No testing	†	†	†	†	†
Tennessee	ETS	—	—	—	—	—
Texas	NES	66	12,982	12,982	100	100 - 100
Utah	No testing	†	†	†	†	†
Vermont	ETS	10	405	398	98	89 - 100
Virginia	ETS	32	2,473	2,411	97	79 - 100
Washington	—	—	—	—	—	—
West Virginia	ETS	—	—	—	—	—
Wisconsin	—	—	—	—	—	—
Wyoming	No testing	†	†	†	†	†
Guam	ETS	1	72	62	86	86 - 86
Puerto Rico	ETS	28	2,167	1,825	84	61 - 99
Virgin Islands	ETS	^	^	^	^	^
Total		752	100,257	98,243	98%	46-100

— Data are not available because test may not be required for certification or licensure or there may be less than 10 test takers.

† Non-testing state.

^ In the Virgin Islands, fewer than 10 candidates took the Praxis I state-mandated teacher certification exam; thus, no pass rate data is reported for this period.

1 Number of institutions includes institutions with 10 or more completers taking an assessment in that area.

2 Number tested is the total number of test takers at all institutions in the state, including institutions with less than 10 completers.

NOTE: ETS is the Educational Testing Service. NES is National Evaluation Systems, Inc. For purposes of this table, the term "state" refers to the 50 states, the District of Columbia, Puerto Rico and outlying areas. Institutions in Alabama, Nebraska, Oklahoma, Tennessee, Washington and Wisconsin require applicants to pass a basic skills test as a condition of admission to a teacher preparation program. These states are not required to submit their basic skills pass rates because they do not require the assessments for certification. Oklahoma has additional tests that are required for certification. In Michigan, institutions require passing basic skills for admission; state requires passage before student teaching.

SOURCE: U.S. Department of Education, Higher Education Act Title II Reporting System, 2004.

Appendix A2. Professional knowledge pass rates: 2002-03

State	Testing company	Professional knowledge 2002-03				
		Number of institutions[1]	Number tested[2]	Number passing	Pass rate (%)	Range (%)
Alabama	—	—	—	—	—	—
Alaska	ETS	—	—	—	—	—
Arizona	NES	12	3,171	3,054	96	88 - 100
Arkansas	ETS	16	1,141	1,096	96	89 - 100
California	ETS/NES	72	13,062	12,748	98	93 - 100
Colorado	NES	13	1,002	984	98	91 - 100
Connecticut	ETS	—	—	—	—	—
Delaware	ETS	—	—	—	—	—
District of Columbia	ETS	2	70	55	79	27 - 92
Florida	ETS	26	4,888	4,873	100	94 - 100
Georgia	ETS	—	—	—	—	—
Hawaii	ETS	5	343	322	94	84 - 100
Idaho	No testing	†	†	†	†	†
Illinois	NES	—	—	—	—	—
Indiana	ETS	2	68	68	100	100 - 100
Iowa	No testing	†	†	†	†	†
Kansas	ETS	21	1,823	1,785	98	89 - 100
Kentucky	ETS	—	—	—	—	—
Louisiana	ETS	18	1,753	1,740	99	94 - 100
Maine	ETS	—	—	—	—	—
Maryland	ETS	15	1,507	1,441	96	91 - 100
Massachusetts	NES	—	—	—	—	—
Michigan	NES	—	—	—	—	—
Minnesota	ETS	25	3,564	3,538	99	96 - 100
Mississippi	ETS	13	1,536	1,515	99	96 - 100
Missouri	ETS	—	—	—	—	—
Montana	No testing	†	†	†	†	†
Nebraska	—	—	—	—	—	—

State	Testing company	Professional knowledge 2002-03				
		Number of institutions[1]	Number tested[2]	Number passing	Pass rate (%)	Range (%)
Nevada	ETS	2	82	67	82	79 - 81
New Hampshire	ETS	—	—	—	—	—
New Jersey	ETS	—	—	—	—	—
New Mexico	NES	7	991	966	97	96 - 100
New York	NES	97	18,419	17,874	97	76 - 100
North Carolina	ETS	—	—	—	—	—
North Dakota	No testing	†	†	†	†	†
Ohio	ETS	48	4,294	4,041	94	79 - 100
Oklahoma	ETS/NES	18	1,862	1,841	99	88 - 100
Oregon	ETS/NES	12	58	58	100	100 - 100
Pennsylvania	ETS	81	9,471	8,910	94	67 - 100
Rhode Island	ETS	6	800	716	90	86 - 100
South Carolina	ETS	14	628	438	70	67 - 100
South Dakota	No testing	†	†	†	†	†
Tennessee	ETS	35	3,100	3,001	97	75 - 100
Texas	NES	64	11,678	10,210	87	50 - 100
Utah	No testing	†	†	†	†	†
Vermont	ETS	—	—	—	—	—
Virginia	ETS	—	—	—	—	—
Washington	—	—	—	—	—	—
West Virginia	ETS	17	1,117	1,117	100	100 - 100
Wisconsin	—	—	—	—	—	—
Wyoming	No testing	†	†	†	†	†
Guam	ETS	—	—	—	—	—
Puerto Rico	ETS	28	2,169	1,883	87	68 - 100
Virgin Islands	ETS	—	—	—	—	—
Total		**669**	**88,597**	**84,341**	**95%**	**27-100**

— Data are not available because test may not be required for certification or licensure or there may be less than 10 test takers.

† Non-testing state.

1 Number of institutions includes institutions with 10 or more completers taking an assessment in that area.

2 Number tested is the total number of test takers at all institutions in the state, including institutions with less than 10 completers.

NOTE: ETS is the Educational Testing Service. NES is National Evaluation Systems, Inc. For purposes of this table, the term "state" refers to the 50 states, the District of Columbia, Puerto Rico and outlying areas. Institutions in Alabama, Nebraska, Oklahoma, Tennessee, Washington and Wisconsin require applicants to pass a basic skills test as a condition of admission to a teacher preparation program. These states are not required to submit their basic skills pass rates because they do not require the assessments for certification. Oklahoma has additional tests that are required for certification. In Michigan, institutions require passing basic skills for admission; state requires passage before student teaching.

SOURCE: U.S. Department of Education, Higher Education Act Title II Reporting System, 2004.

Appendix A2. Academic content pass rates: 2002-03

State	Testing company	Academic content 2002-03				
		Number of institutions[1]	Number tested[2]	Number passing	Pass rate (%)	Range (%)
Alabama	—	—	—	—	—	—
Alaska	ETS	—	—	—	—	—
Arizona	NES	12	2,804	2,748	98	93 - 100
Arkansas	ETS	16	1,044	1,026	98	93 - 100
California	ETS/NES	44	2,026	1,977	98	89 - 100
Colorado	NES	13	775	742	96	82 - 100
Connecticut	ETS	14	1,485	1,440	97	91 - 100
Delaware	ETS	—	—	—	—	—
District of Columbia	ETS	5	158	143	91	81 - 95
Florida	ETS	25	4,229	4,176	99	84 - 100
Georgia	ETS	24	1,429	1,312	92	72 - 100
Hawaii	ETS	5	316	264	84	69 - 86
Idaho	No testing	†	†	†	†	†
Illinois	NES	50	7,879	7,736	98	88 - 100
Indiana	ETS	37	3,961	3,894	98	75 - 100
Iowa	No testing	†	†	†	†	†
Kansas	ETS	—	—	—	—	—
Kentucky	ETS	24	2,422	2,292	95	75 - 100
Louisiana	ETS	18	1,662	1,648	99	89 - 100
Maine	ETS	—	—	—	—	—
Maryland	ETS	16	1,789	1,748	98	94 - 100
Massachusetts	NES	48	3,131	3,051	97	46 - 100
Michigan	NES	32	10,639	10,633	100	100 - 100
Minnesota	ETS	24	2,951	2,908	99	88 - 100
Mississippi	ETS	13	1,430	1,385	97	93 - 100
Missouri	ETS	36	3,234	3,103	96	75 - 100
Montana	No testing	†	†	†	†	†
Nebraska	—	—	—	—	—	—

State	Testing company	Academic content 2002-03				
		Number of institutions[1]	Number tested[2]	Number passing	Pass rate (%)	Range (%)
Nevada	ETS	6	283	253	89	74 - 100
New Hampshire	ETS	5	111	98	88	82 - 100
New Jersey	ETS	21	3,299	3,249	98	94 - 100
New Mexico	NES	—	—	—	—	—
New York	NES	97	18,445	17,717	96	63 - 100
North Carolina	ETS	37	2,316	2,173	94	75 - 100
North Dakota	No testing	†	†	†	†	†
Ohio	ETS	48	6,758	6,416	95	85 - 100
Oklahoma	ETS/NES	18	1,757	1,721	98	92 - 100
Oregon	ETS/NES	16	2,076	2,076	100	100 - 100
Pennsylvania	ETS	81	9,705	9,046	93	58 - 100
Rhode Island	ETS	—	—	—	—	—
South Carolina	ETS	26	1,708	1,620	95	78 - 100
South Dakota	No testing	†	†	†	†	†
Tennessee	ETS	23	1,312	1,237	94	85 - 100
Texas	NES	65	11,733	10,724	91	50 - 100
Utah	No testing	†	†	†	†	†
Vermont	ETS	2	108	105	97	95 - 98
Virginia	ETS	28	1,247	1,207	97	83 - 100
Washington	—	—	—	—	—	—
West Virginia	ETS	17	1,312	1,312	100	100 - 100
Wisconsin	—	—	—	—	—	—
Wyoming	No testing	†	†	†	†	†
Guam	ETS	—	—	—	—	—
Puerto Rico	ETS	15	565	517	92	75 - 98
Virgin Islands	ETS	—	—	—	—	—
Total		**961**	**116,099**	**111,697**	**96%**	**46-100**

— Data are not available because test may not be required for certification or licensure or there may be less than 10 test takers.

† Non-testing state.

1 Number of institutions includes institutions with 10 or more completers taking an assessment in that area.

2 Number tested is the total number of test takers at all institutions in the state, including institutions with less than 10 completers.

NOTE: ETS is the Educational Testing Service. NES is National Evaluation Systems, Inc. For purposes of this table, the term "state" refers to the 50 states, the District of Columbia, Puerto Rico and outlying areas. Institutions in Alabama, Nebraska, Oklahoma, Tennessee, Washington and Wisconsin require applicants to pass a basic skills test as a condition of admission to a teacher preparation program. These states are not required to submit their basic skills pass rates because they do not require the assessments for certification. Oklahoma has additional tests that are required for certification. In Michigan, institutions require passing basic skills for admission; state requires passage before student teaching.

SOURCE: U.S. Department of Education, Higher Education Act Title II Reporting System, 2004.

Appendix A2. Other content pass rates: 2002-03

State	Testing company	Other content 2002-03				
		Number of institutions[1]	Number tested[2]	Number passing	Pass rate (%)	Range (%)
Alabama	—	—	—	—	—	—
Alaska	ETS	—	—	—	—	—
Arizona	NES	5	86	85	99	91 - 100
Arkansas	ETS	3	83	83	100	100 - 100
California	ETS/NES	65	7,357	7,316	99	96 - 100
Colorado	NES	1	37	37	100	100 - 100
Connecticut	ETS	2	30	30	100	100 - 100
Delaware	ETS	—	—	—	—	—
District of Columbia	ETS	—	—	—	—	—
Florida	ETS	1	29	29	100	100 - 100
Georgia	ETS	1	26	24	92	100 - 100
Hawaii	ETS	—	—	—	—	—
Idaho	No testing	†	†	†	†	†
Illinois	NES	10	232	228	98	91 - 100
Indiana	ETS	4	92	92	100	100 - 100
Iowa	No testing	†	†	†	†	†
Kansas	ETS	—	—	—	—	—
Kentucky	ETS	7	164	153	93	71 - 100
Louisiana	ETS	—	—	—	—	—
Maine	ETS	—	—	—	—	—
Maryland	ETS	—	—	—	—	—
Massachusetts	NES	8	13	13	100	100 - 100
Michigan	NES	8	351	351	100	100 - 100
Minnesota	ETS	5	118	118	100	100 - 100
Mississippi	ETS	—	—	—	—	—
Missouri	ETS	6	216	216	100	100 - 100
Montana	No testing	†	†	†	†	†
Nebraska	—	—	—	—	—	—

State	Testing company	Other content 2002-03				
		Number of institutions[1]	Number tested[2]	Number passing	Pass rate (%)	Range (%)
Nevada	ETS	—	—	—	—	—
New Hampshire	ETS	—	—	—	—	—
New Jersey	ETS	1	31	31	100	100 - 100
New Mexico	NES	—	—	—	—	—
New York	NES	—	—	—	—	—
North Carolina	ETS	6	173	148	86	80 - 100
North Dakota	No testing	†	†	†	†	†
Ohio	ETS	5	142	142	100	100 - 100
Oklahoma	ETS/NES	18	2,228	2,221	100	93 - 100
Oregon	ETS/NES	9	228	228	100	100 - 100
Pennsylvania	ETS	10	545	542	99	88 - 100
Rhode Island	ETS	—	—	—	—	—
South Carolina	ETS	7	24	17	71	NA
South Dakota	No testing	†	†	†	†	†
Tennessee	ETS	5	161	159	99	100 - 100
Texas	NES	—	—	—	—	—
Utah	No testing	†	†	†	†	†
Vermont	ETS	6	190	186	98	91 - 100
Virginia	ETS	3	114	110	96	92 - 100
Washington	—	—	—	—	—	—
West Virginia	ETS	4	86	86	100	100 - 100
Wisconsin	—	—	—	—	—	—
Wyoming	No testing	†	†	†	†	†
Guam	ETS	—	—	—	—	—
Puerto Rico	ETS	—	—	—	—	—
Virgin Islands	ETS	—	—	—	—	—
Total		200	12,756	12,645	99%	71-100

— Data are not available because test may not be required for certification or licensure or there may be less than 10 test takers.

† Non-testing state.

1 Number of institutions includes institutions with 10 or more completers taking an assessment in that area.

2 Number tested is the total number of test takers at all institutions in the state, including institutions with less than 10 completers.

NOTE: ETS is the Educational Testing Service. NES is National Evaluation Systems, Inc. For purposes of this table, the term "state" refers to the 50 states, the District of Columbia, Puerto Rico and outlying areas. Institutions in Alabama, Nebraska, Oklahoma, Tennessee, Washington and Wisconsin require applicants to pass a basic skills test as a condition of admission to a teacher preparation program. These states are not required to submit their basic skills pass rates because they do not require the assessments for certification. Oklahoma has additional tests that are required for certification. In Michigan, institutions require passing basic skills for admission; state requires passage before student teaching.

SOURCE: U.S. Department of Education, Higher Education Act Title II Reporting System, 2004.

Appendix A2. Teaching special populations pass rates: 2002-03

State	Testing company	Teaching special populations 2002-03				
		Number of institutions[1]	Number tested[2]	Number passing	Pass rate (%)	Range (%)
Alabama	—	—	—	—	—	—
Alaska	ETS	—	—	—	—	—
Arizona	NES	5	171	166	97	96 - 100
Arkansas	ETS	3	12	12	100	100 - 100
California	ETS/NES	—	—	—	—	—
Colorado	NES	6	232	223	96	90 - 100
Connecticut	ETS	5	185	174	94	89 - 100
Delaware	ETS	—	—	—	—	—
District of Columbia	ETS	2	90	84	93	91 - 100
Florida	ETS	12	643	638	99	95 - 100
Georgia	ETS	6	149	147	99	90 - 100
Hawaii	ETS	2	86	73	85	83 - 93
Idaho	No testing	†	†	†	†	†
Illinois	NES	21	1,107	1,045	94	83 - 100
Indiana	ETS	6	239	238	100	97 - 100
Iowa	No testing	†	†	†	†	†
Kansas	ETS	—	—	—	—	—
Kentucky	ETS	8	306	256	84	72 - 96
Louisiana	ETS	—	—	—	—	—
Maine	ETS	—	—	—	—	—
Maryland	ETS	5	118	109	92	82 - 100
Massachusetts	NES	13	445	439	99	93 - 100
Michigan	NES	5	159	159	100	100 - 100
Minnesota	ETS	7	324	323	100	98 - 100
Mississippi	ETS	3	92	77	84	77 - 91
Missouri	ETS	7	296	286	97	90 - 100
Montana	No testing	†	†	†	†	†
Nebraska	—	—	—	—	—	—

State	Testing company	Teaching special populations 2002-03				
		Number of institutions[1]	Number tested[2]	Number passing	Pass rate (%)	Range (%)
Nevada	ETS	1	29	26	90	91 - 91
New Hampshire	ETS	—	—	—	—	—
New Jersey	ETS	—	—	—	—	—
New Mexico	NES	—	—	—	—	—
New York	NES	—	—	—	—	—
North Carolina	ETS	7	150	144	96	70 - 100
North Dakota	No testing	†	†	†	†	†
Ohio	ETS	29	825	820	99	92 - 100
Oklahoma	ETS/NES	1	54	53	98	100 - 100
Oregon	ETS/NES	7	292	292	100	100 - 100
Pennsylvania	ETS	35	1,484	1,479	100	91 - 100
Rhode Island	ETS	—	—	—	—	—
South Carolina	ETS	9	234	209	89	70 - 100
South Dakota	No testing	†	†	†	†	†
Tennessee	ETS	10	307	285	93	82 - 100
Texas	NES	34	2,058	1,881	91	63 - 100
Utah	No testing	†	†	†	†	†
Vermont	ETS	—	—	—	—	—
Virginia	ETS	—	—	—	—	—
Washington	—	—	—	—	—	—
West Virginia	ETS	3	86	86	100	100 - 100
Wisconsin	—	—	—	—	—	—
Wyoming	No testing	†	†	†	†	†
Guam	ETS	—	—	—	—	—
Puerto Rico	ETS	—	—	—	—	—
Virgin Islands	ETS	—	—	—	—	—
Total		252	10,173	9,724	96%	70-100

— Data are not available because test may not be required for certification or licensure or there may be less than 10 test takers.

† Non-testing state.

1 Number of institutions includes institutions with 10 or more completers taking an assessment in that area.

2 Number tested is the total number of test takers at all institutions in the state, including institutions with less than 10 completers.

NOTE: ETS is the Educational Testing Service. NES is National Evaluation Systems, Inc. For purposes of this table, the term "state" refers to the 50 states, the District of Columbia, Puerto Rico and outlying areas. Institutions in Alabama, Nebraska, Oklahoma, Tennessee, Washington and Wisconsin require applicants to pass a basic skills test as a condition of admission to a teacher preparation program. These states are not required to submit their basic skills pass rates because they do not require the assessments for certification. Oklahoma has additional tests that are required for certification. In Michigan, institutions require passing basic skills for admission; state requires passage before student teaching.

SOURCE: U.S. Department of Education, Higher Education Act Title II Reporting System, 2004.

Appendix A3. Classroom teachers on waivers, overall and by poverty status of district, by state: 2003-04

State	All districts			High-poverty districts			All other districts		
	Total number of teachers	Teachers on waivers		Total number of teachers	Teachers on waivers		Total number of teachers	Teachers on waivers	
		Total			Total			Total	
		Number	Percent		Number	Percent		Number	Percent
Alabama	47,568	173	0.4%	3,210	27	0.8%	44,358	146	0.3%
Alaska	8,100	99	1.2%	921	48	5.2%	7,179	51	0.7%
Arizona	51,968	1,345	2.6%	6,979	367	5.3%	44,989	978	2.2%
Arkansas	32,155	533	1.7%	5,308	112	2.1%	26,847	421	1.6%
California	305,855	17,082	5.6%	84,373	5,282	6.3%	221,482	11,800	5.3%
Colorado	46,638	1,948	4.2%	9,211	899	9.8%	37,427	1,049	2.8%
Connecticut	50,165	705	1.4%	16,216	297	1.8%	33,949	408	1.2%
Delaware	7,805	597	7.6%	911	67	7.4%	6,894	530	7.7%
District of Columbia	5,900	0	0.0%	—	—	—	—	—	—
Florida	149,496	6,926	4.6%	4,687	212	4.5%	144,809	6,714	4.6%
Georgia	115,733	10,337	8.9%	115,225	10,246	8.9%	508	91	17.9%
Hawaii	12,481	538	4.3%	—	—	—	—	—	—
Idaho	14,003	576	4.1%	1,940	140	7.2%	12,063	436	3.6%
Illinois	135,688	3,317	2.4%	49,915	2,223	4.5%	85,773	1,094	1.3%
Indiana	59,831	688	1.1%	1,421	100	7.0%	58,410	588	1.0%
Iowa	38,714	0	0.0%	12,653	0	0.0%	26,061	0	0.0%
Kansas	41,096	11	0.0%	7,688	1	0.0%	33,408	10	0.0%
Kentucky	42,391	1,728	4.1%	6,754	233	3.4%	35,637	1,495	4.2%
Louisiana	55,367	5,101	9.2%	8,536	1,157	13.6%	46,831	3,944	8.4%
Maine	17,260	887	5.1%	2,737	144	5.3%	14,523	743	5.1%
Maryland	56,276	5,115	9.1%	8,778	1,772	20.2%	47,498	3,343	7.0%
Massachusetts	70,017	1,489	2.1%	30,378	1,006	3.3%	39,639	483	1.2%
Michigan	112,855	2,183	1.9%	30,489	276	0.9%	82,444	1,071	1.3%
Minnesota	87,006	3,783	4.3%	12,855	572	4.4%	74,151	3,211	4.3%
Mississippi	33,230	0	0.0%	0	0	0.0%	0	0	0.0%
Missouri	65,998	1,280	1.9%	12,985	589	4.5%	53,013	691	1.3%
Montana	10,300	12	0.1%	—	0	—	—	0	—
Nebraska	26,296	62	0.2%	1,615	9	0.6%	24,681	53	0.2%
Nevada	20,261	0	0.0%	838	0	0.0%	19,423	0	0.0%
New Hampshire	14,082	35	0.2%	3,478	8	0.2%	10,604	27	0.3%

Appendix A3. Classroom teachers on waivers, overall and by poverty status of district, by state: 2003-04 *continued*

State	All districts			High-poverty districts			All other districts		
	Total number of teachers	Teachers on waivers		Total number of teachers	Teachers on waivers		Total number of teachers	Teachers on waivers	
		Total			Total			Total	
		Number	Percent		Number	Percent		Number	Percent
New Jersey	101,356	2,009	2.0%	34,288	1,213	3.5%	67,068	796	1.2%
New Mexico	21,521	1,003	4.7%	3,351	274	8.2%	18,170	729	4.0%
New York	212,333	1,363	0.6%	71,220	1,218	1.7%	141,113	145	0.1%
North Carolina	91,583	6,916	7.6%	9,626	766	8.0%	81,957	6,150	7.5%
North Dakota	7,972	164	2.1%	435	14	3.2%	7,537	150	2.0%
Ohio	110,498	939	0.8%	22,489	240	1.1%	88,009	699	0.8%
Oklahoma	54,485	20	0.0%	—	11	—	—	9	—
Oregon	33,988	625	1.8%	3,112	72	2.3%	30,886	553	1.8%
Pennsylvania	122,176	2,938	2.4%	24,875	1,967	7.9%	97,301	971	1.0%
Rhode Island	12,181	359	2.9%	4,836	140	2.9%	7,345	219	3.0%
South Carolina	50,943	2,318	4.6%	6,002	480	8.0%	44,941	1,838	4.1%
South Dakota	11,830	55	0.5%	2,185	51	2.3%	9,645	4	0.0%
Tennessee	58,366	821	1.4%	11,836	257	2.2%	46,530	564	1.2%
Texas	293,719	22,938	7.8%	65,556	5,425	8.3%	228,163	17,513	7.7%
Utah	24,012	1,085	4.5%	1,215	85	7.0%	22,797	1,000	4.4%
Vermont	8,693	189	2.2%	—	74	—	—	115	—
Virginia	95,705	10	0.0%	15,415	6	0.0%	80,290	4	0.0%
Washington	57,363	223	0.4%	5,337	37	0.7%	52,026	186	0.4%
West Virginia	21,248	1,336	6.3%	3,598	246	6.8%	17,650	1,090	6.2%
Wisconsin	62,168	0	0.0%	18,393	0	0.0%	43,569	0	0.0%
Wyoming	6,503	12	0.2%	811	2	0.2%	5,692	10	0.2%
Guam	944	76	8.1%	—	—	—	—	—	—
Puerto Rico	41,271	1,607	3.9%	—	—	—	—	—	—
Virgin Islands	1,472	1,070	72.7%	—	—	—	—	—	—
Total (All States)	3,236,865	114,626	3.5%	744,681	38,365	5.2%	2,323,299	72,122	3.1%

— Data not available.

NOTE: For purposes of this table, the term "state" refers to the 50 states, the District of Columbia, Puerto Rico and outlying areas. The definition of a "waiver" changed for the 2004 reporting cycle. The number of teachers on waivers collected through the Title II survey may not agree with data from other federal data collections. For example, the National Center for Education Statistics collects teacher data in full-time equivalencies through the Common Core of Data, while the Title II survey captures a headcount. The timing of the data collections (fall versus a full-year count) can also produce vastly different teacher counts. The reader should exercise caution when comparing the Title II teacher data with other sources of teacher counts. The District of Columbia, Hawaii and the Virgin Islands are both state education agencies and local education agencies and do not have a poverty designation.

SOURCE: U.S. Department of Education, Higher Education Act Title II Reporting System, 2004.

Appendix A4. Number and percent of classroom teachers on waivers by subject area, by state: 2003-04

State	Arts (all levels)		
	# Teachers in subject area	Teachers on waivers	
		Number	Percent
Alabama	1,524	7	0.5%
Alaska	448	5	1.1%
Arizona	3,550	99	2.8%
Arkansas	1,849	28	1.5%
California	3,848	162	4.2%
Colorado	1,365	138	10.1%
Connecticut	4,522	33	0.7%
D.C.	—	0	—
Delaware	399	29	7.3%
Florida	6,179	146	2.4%
Georgia	4,776	414	8.7%
Guam	23	2	8.7%
Hawaii	346	11	3.2%
Idaho	—	36	—
Illinois	7,452	105	1.4%
Indiana	20,697	31	0.1%
Iowa	3,544	0	0.0%
Kansas	5,388	2	0.0%
Kentucky	5,627	46	0.8%
Louisiana	3,568	297	8.3%
Maine	1,196	56	4.7%
Maryland	3,714	306	8.2%
Massachusetts	3,996	72	1.8%
Michigan	5,802	91	1.6%
Minnesota	10,154	248	2.4%
Mississippi	—	0	—
Missouri	5,048	141	2.8%
Montana	600	4	0.7%

State	Arts (all levels)		
	# Teachers in subject area	Teachers on waivers	
		Number	Percent
Nebraska	1,879	1	0.1%
Nevada	1,184	0	0.0%
New Hampshire	490	0	0.0%
New Jersey	6,750	0	0.0%
New Mexico	960	15	1.6%
New York	13,355	10	0.1%
North Carolina	5,699	371	6.5%
North Dakota	42	3	7.1%
Ohio	4,904	24	0.5%
Oklahoma	—	—	—
Oregon	471	72	15.3%
Pennsylvania	10,441	74	0.7%
Puerto Rico	1,883	81	4.3%
Rhode Island	360	0	0.0%
South Carolina	2,938	131	4.5%
South Dakota	320	1	0.3%
Tennessee	3,364	99	2.9%
Texas	24,075	1,831	7.6%
Utah	1,200	125	10.4%
Vermont	—	19	—
Virgin Islands	57	44	77.2%
Virginia	2,291	1	0.0%
Washington	—	41	—
West Virginia	3,259	43	1.3%
Wisconsin	4,005	0	0.0%
Wyoming	283	1	0.4%
Total (only states reporting totals and subject data)	195,825	5,400	2.8%

State	Bilingual/ESL (all levels)		
	# Teachers in subject area	Teachers on waivers	
		Number	Percent
Alabama	77	1	1.3%
Alaska	80	4	5.0%
Arizona	2,147	57	2.7%
Arkansas	799	17	2.1%
California	166,408	3,127	1.9%
Colorado	1,844	75	4.1%
Connecticut	507	28	5.5%
D.C.	—	0	—
Delaware	18	8	44.4%
Florida	1,124	5	0.4%
Georgia	1,044	59	5.7%
Guam	36	7	19.4%
Hawaii	69	5	7.2%
Idaho	—	12	—
Illinois	3,082	784	25.4%
Indiana	555	6	1.1%
Iowa	282	0	0.0%
Kansas	376	1	0.3%
Kentucky	223	29	13.0%
Louisiana	152	19	12.5%
Maine	94	6	6.4%
Maryland	599	92	15.4%
Massachusetts	2,150	95	4.4%
Michigan	327	52	15.9%
Minnesota	2,142	95	4.4%
Mississippi	—	0	—
Missouri	281	10	3.6%
Montana	4	0	0.0%

State	Bilingual/ESL (all levels)		
	# Teachers in subject area	Teachers on waivers	
		Number	Percent
Nebraska	546	1	0.2%
Nevada	630	0	0.0%
New Hampshire	121	—	—
New Jersey	2,237	364	16.3%
New Mexico	1,629	316	19.4%
New York	5,616	1	0.0%
North Carolina	1,400	381	27.2%
North Dakota	0	0	—
Ohio	225	2	0.9%
Oklahoma	—	—	—
Oregon	1,432	54	3.8%
Pennsylvania	0	0	—
Puerto Rico	0	0	—
Rhode Island	94	11	11.7%
South Carolina	90	21	23.3%
South Dakota	19	1	5.3%
Tennessee	108	4	3.7%
Texas	27,849	2,556	9.2%
Utah	288	8	2.8%
Vermont	—	4	—
Virgin Islands	34	25	73.5%
Virginia	1,652	0	0.0%
Washington	—	12	—
West Virginia	5	2	40.0%
Wisconsin	596	0	0.0%
Wyoming	24	0	0.0%
Total (only states reporting totals and subject data)	228,894	8,329	3.6%

Appendix A4. Number and percent of classroom teachers on waivers by subject area, by state: 2003-04 *continued*

State	Civics and government (secondary)		
	# Teachers in subject area	Teachers on waivers	
		Number	Percent
Alabama	754	1	0.1%
Alaska	86	—	—
Arizona	939	17	1.8%
Arkansas	—	—	—
California	0	0	—
Colorado	—	—	—
Connecticut	94	—	—
D.C.	—	0	—
Delaware	0	0	—
Florida	—	—	—
Georgia	—	—	—
Guam	4	—	—
Hawaii	—	—	—
Idaho	—	2	—
Illinois	531	1	0.2%
Indiana	3,747	6	0.2%
Iowa	479	0	—
Kansas	471	0	0.0%
Kentucky	—	—	—
Louisiana	570	49	8.6%
Maine	—	—	—
Maryland	174	170	97.7%
Massachusetts	—	—	—
Michigan	320	1	0.3%
Minnesota	1,236	15	1.2%
Mississippi	—	0	—
Missouri	942	13	1.4%
Montana	166	0	0.0%

State	Civics and government (secondary)		
	# Teachers in subject area	Teachers on waivers	
		Number	Percent
Nebraska	149	0	0.0%
Nevada	430	0	0.0%
New Hampshire	801	—	—
New Jersey	0	0	—
New Mexico	—	—	—
New York	0	0	—
North Carolina	98	8	8.2%
North Dakota	0	0	—
Ohio	2,321	26	1.1%
Oklahoma	—	—	—
Oregon	—	—	—
Pennsylvania	6,507	48	0.7%
Puerto Rico	0	0	—
Rhode Island	258	0	0.0%
South Carolina	1,830	58	3.2%
South Dakota	257	5	1.9%
Tennessee	459	1	0.2%
Texas	2,828	246	8.7%
Utah	176	3	1.7%
Vermont	—	—	—
Virgin Islands	0	0	—
Virginia	1,306	0	0.0%
Washington	—	0	—
West Virginia	215	15	7.0%
Wisconsin	2,485	0	0.0%
Wyoming	0	0	—
Total (only states reporting totals and subject data)	29,648	683	2.3%

State	Economics (secondary)		
	# Teachers in subject area	Teachers on waivers	
		Number	Percent
Alabama	147	1	0.7%
Alaska	37	—	—
Arizona	332	7	2.1%
Arkansas	—	—	—
California	0	0	—
Colorado	—	—	—
Connecticut	35	—	—
D.C.	—	0	—
Delaware	0	0	—
Florida	—	—	—
Georgia	—	—	—
Guam	—	—	—
Hawaii	—	—	—
Idaho	—	5	—
Illinois	343	1	0.3%
Indiana	453	0	0.0%
Iowa	159	0	—
Kansas	115	0	0.0%
Kentucky	—	—	—
Louisiana	11	1	9.1%
Maine	—	—	—
Maryland	280	0	0.0%
Massachusetts	—	—	—
Michigan	328	2	0.6%
Minnesota	522	12	2.3%
Mississippi	—	0	—
Missouri	262	2	0.8%
Montana	2	0	0.0%
Nebraska	32	1	3.1%
Nevada	15	0	0.0%
New Hampshire	—	—	—
New Jersey	0	0	—
New Mexico	—	—	—
New York	0	0	—
North Carolina	53	5	9.4%
North Dakota	0	0	—
Ohio	927	6	0.6%
Oklahoma	—	—	—
Oregon	—	—	—
Pennsylvania	0	0	—
Puerto Rico	0	0	—
Rhode Island	60	0	0.0%
South Carolina	1,645	29	1.8%
South Dakota	142	3	2.1%
Tennessee	381	1	0.3%
Texas	2,065	195	9.4%
Utah	18	0	0.0%
Vermont	—	—	—
Virgin Islands	0	0	—
Virginia	12	0	0.0%
Washington	—	0	—
West Virginia	129	15	11.6%
Wisconsin	154	0	0.0%
Wyoming	0	0	—
Total (only states reporting totals and subject data)	8,587	281	3.3%

Appendix A4. Number and percent of classroom teachers on waivers by subject area, by state: 2003-04 *continued*

State	English (secondary)		
	# Teachers in subject area	Teachers on waivers	
		Number	Percent
Alabama	5,627	11	0.2%
Alaska	1,003	9	0.9%
Arizona	4,322	102	2.4%
Arkansas	1,434	28	2.0%
California	26,868	1,142	4.3%
Colorado	5,104	174	3.4%
Connecticut	3,607	38	1.1%
D.C.	—	0	—
Delaware	531	34	6.4%
Florida	9,215	67	0.7%
Georgia	10,602	1,130	10.7%
Guam	118	11	9.3%
Hawaii	758	62	8.2%
Idaho	—	31	—
Illinois	5,808	52	0.9%
Indiana	12,758	25	0.2%
Iowa	3,323	0	0.0%
Kansas	5,650	0	0.0%
Kentucky	7,756	93	1.2%
Louisiana	4,235	203	4.8%
Maine	1,904	52	2.7%
Maryland	4,188	421	10.1%
Massachusetts	5,128	88	1.7%
Michigan	5,829	32	0.5%
Minnesota	12,713	214	1.7%
Mississippi	—	0	—
Missouri	5,002	106	2.1%
Montana	646	1	0.2%

State	English (secondary)		
	# Teachers in subject area	Teachers on waivers	
		Number	Percent
Nebraska	2,371	6	0.3%
Nevada	1,956	0	0.0%
New Hampshire	921	1	0.1%
New Jersey	6,554	0	0.0%
New Mexico	2,005	12	0.6%
New York	15,837	8	0.1%
North Carolina	5,469	458	8.4%
North Dakota	273	13	4.8%
Ohio	32,935	263	0.8%
Oklahoma	—	2	—
Oregon	1,623	86	5.3%
Pennsylvania	14,433	59	0.4%
Puerto Rico	2,204	76	3.4%
Rhode Island	1,029	9	0.9%
South Carolina	5,068	233	4.6%
South Dakota	1,763	2	0.1%
Tennessee	3,510	36	1.0%
Texas	32,761	2,551	7.8%
Utah	2,437	70	2.9%
Vermont	—	6	—
Virgin Islands	90	63	70.0%
Virginia	6,582	0	0.0%
Washington	—	3	—
West Virginia	2,450	36	1.5%
Wisconsin	4,391	0	0.0%
Wyoming	418	2	0.5%
Total (only states reporting totals and subject data)	291,209	8,079	2.8%

State	Foreign language (secondary)		
	# Teachers in subject area	Teachers on waivers	
		Number	Percent
Alabama	725	14	1.9%
Alaska	196	4	2.0%
Arizona	988	39	3.9%
Arkansas	545	27	5.0%
California	5,309	384	7.2%
Colorado	1,330	117	8.8%
Connecticut	2,350	24	1.0%
D.C.	—	0	—
Delaware	155	20	12.9%
Florida	3,787	20	0.5%
Georgia	205	48	23.4%
Guam	19	7	36.8%
Hawaii	169	15	8.9%
Idaho	—	24	—
Illinois	3,623	194	5.4%
Indiana	4,178	62	1.5%
Iowa	785	0	0.0%
Kansas	973	5	0.5%
Kentucky	—	—	—
Louisiana	935	126	13.5%
Maine	684	100	14.6%
Maryland	1,432	225	15.7%
Massachusetts	2,682	108	4.0%
Michigan	2,221	88	4.0%
Minnesota	3,825	229	6.0%
Mississippi	—	0	—
Missouri	1,379	45	3.3%
Montana	181	3	1.7%

State	Foreign language (secondary)		
	# Teachers in subject area	Teachers on waivers	
		Number	Percent
Nebraska	688	1	0.1%
Nevada	364	0	0.0%
New Hampshire	507	5	1.0%
New Jersey	4,379	343	7.8%
New Mexico	504	10	2.0%
New York	6,815	168	2.5%
North Carolina	2,700	407	15.1%
North Dakota	81	4	4.9%
Ohio	3,357	60	1.8%
Oklahoma	—	2	—
Oregon	563	12	2.1%
Pennsylvania	4,025	146	3.6%
Puerto Rico	4,405	225	5.1%
Rhode Island	478	28	5.9%
South Carolina	880	111	12.6%
South Dakota	332	1	0.3%
Tennessee	1,109	33	3.0%
Texas	6,991	1,012	14.5%
Utah	652	73	11.2%
Vermont	—	17	—
Virgin Islands	33	28	84.8%
Virginia	3,254	0	0.0%
Washington	—	26	—
West Virginia	518	42	8.1%
Wisconsin	1,899	0	0.0%
Wyoming	137	1	0.7%
Total (only states reporting totals and subject data)	83,347	4,614	5.5%

Appendix A4. Number and percent of classroom teachers on waivers by subject area, by state: 2003-04 *continued*

State	Geography (secondary)		
	# Teachers in subject area	Teachers on waivers	
		Number	Percent
Alabama	491	1	0.2%
Alaska	64	—	—
Arizona	545	7	1.3%
Arkansas	—	—	—
California	0	0	—
Colorado	—	—	—
Connecticut	65	—	—
D.C.	—	0	—
Delaware	0	0	—
Florida	—	—	—
Georgia	—	—	—
Guam	5	—	—
Hawaii	—	—	—
Idaho	—	0	—
Illinois	652	4	0.6%
Indiana	487	0	0.0%
Iowa	48	0	0.0%
Kansas	302	0	0.0%
Kentucky	—	—	—
Louisiana	638	59	9.2%
Maine	—	—	—
Maryland	27	0	0.0%
Massachusetts	—	—	—
Michigan	331	1	0.3%
Minnesota	0	0	—
Mississippi	—	0	—
Missouri	575	9	1.6%
Montana	37	0	0.0%
Nebraska	122	0	0.0%
Nevada	158	0	0.0%
New Hampshire	—	—	—
New Jersey	0	0	—
New Mexico	—	—	—
New York	0	0	—
North Carolina	—	—	—
North Dakota	0	0	—
Ohio	442	5	1.1%
Oklahoma	—	—	—
Oregon	—	—	—
Pennsylvania	0	0	—
Puerto Rico	0	0	—
Rhode Island	104	0	0.0%
South Carolina	1,152	44	3.8%
South Dakota	304	10	3.3%
Tennessee	859	4	0.5%
Texas	5,123	580	11.3%
Utah	363	55	15.2%
Vermont	—	—	—
Virgin Islands	0	0	—
Virginia	325	0	0.0%
Washington	—	0	—
West Virginia	613	15	2.4%
Wisconsin	214	0	0.0%
Wyoming	0	0	—
Total (only states reporting totals and subject data)	13,912	794	5.7%

State	History (secondary)		
	# Teachers in subject area	Teachers on waivers	
		Number	Percent
Alabama	2,162	3	0.1%
Alaska	305	—	—
Arizona	1,900	35	1.8%
Arkansas	—	—	—
California	0	0	—
Colorado	—	—	—
Connecticut	828	2	0.2%
D.C.	—	0	—
Delaware	0	0	—
Florida	—	—	—
Georgia	—	—	—
Guam	110	6	5.5%
Hawaii	—	—	—
Idaho	—	4	—
Illinois	2,868	35	1.2%
Indiana	1,777	8	0.5%
Iowa	615	0	0.0%
Kansas	3,300	0	0.0%
Kentucky	—	—	—
Louisiana	857	53	6.2%
Maine	—	—	—
Maryland	918	46	5.0%
Massachusetts	4,281	67	1.6%
Michigan	1,993	6	0.3%
Minnesota	3,427	41	1.2%
Mississippi	—	0	—
Missouri	2,165	32	1.5%
Montana	242	0	0.0%
Nebraska	945	4	0.4%
Nevada	521	0	0.0%
New Hampshire	—	—	—
New Jersey	4,963	0	0.0%
New Mexico	1,378	16	1.2%
New York	0	0	—
North Carolina	1,071	92	8.6%
North Dakota	0	0	—
Ohio	28,251	198	0.7%
Oklahoma	—	3	—
Oregon	—	—	—
Pennsylvania	0	0	—
Puerto Rico	0	0	—
Rhode Island	108	0	0.0%
South Carolina	2,093	67	3.2%
South Dakota	217	2	0.9%
Tennessee	1,286	3	0.2%
Texas	15,172	1,314	8.7%
Utah	1,239	31	2.5%
Vermont	—	—	—
Virgin Islands	74	62	83.8%
Virginia	4,128	0	0.0%
Washington	—	3	—
West Virginia	1,599	17	1.1%
Wisconsin	1,599	0	0.0%
Wyoming	324	0	0.0%
Total (only states reporting totals and subject data)	92,411	2,140	2.3%

Appendix A4. Number and percent of classroom teachers on waivers by subject area, by state: 2003-04 *continued*

State	Mathematics (secondary)		
	# Teachers in subject area	Teachers on waivers	
		Number	Percent
Alabama	2,955	27	0.9%
Alaska	822	9	1.1%
Arizona	3,696	118	3.2%
Arkansas	1,518	41	2.7%
California	18,293	1,354	7.4%
Colorado	3,387	172	5.1%
Connecticut	3,351	106	3.2%
D.C.	—	0	—
Delaware	445	47	10.6%
Florida	7,664	52	0.7%
Georgia	7,940	918	11.6%
Guam	113	10	8.8%
Hawaii	538	51	9.5%
Idaho	—	39	—
Illinois	8,977	88	1.0%
Indiana	9,323	67	0.7%
Iowa	1,805	0	0.0%
Kansas	4,444	0	0.0%
Kentucky	4,868	90	1.8%
Louisiana	2,639	389	14.7%
Maine	1,169	86	7.4%
Maryland	3,963	409	10.3%
Massachusetts	5,030	179	3.6%
Michigan	6,454	116	1.8%
Minnesota	9,783	151	1.5%
Mississippi	—	0	—
Missouri	3,923	87	2.2%
Montana	515	1	0.2%

State	Mathematics (secondary)		
	# Teachers in subject area	Teachers on waivers	
		Number	Percent
Nebraska	1,499	3	0.2%
Nevada	1,380	0	0.0%
New Hampshire	800	4	0.5%
New Jersey	7,267	0	0.0%
New Mexico	1,172	26	2.2%
New York	14,920	346	2.3%
North Carolina	3,788	303	8.0%
North Dakota	231	5	2.2%
Ohio	33,375	250	0.7%
Oklahoma	—	7	—
Oregon	1,847	30	1.6%
Pennsylvania	7,007	181	2.6%
Puerto Rico	2,133	108	5.1%
Rhode Island	827	87	10.5%
South Carolina	3,799	200	5.3%
South Dakota	1,273	18	1.4%
Tennessee	4,547	127	2.8%
Texas	21,108	1,878	8.9%
Utah	1,775	192	10.8%
Vermont	—	20	—
Virgin Islands	82	70	85.4%
Virginia	6,366	0	0.0%
Washington	—	12	—
West Virginia	2,215	33	1.5%
Wisconsin	4,023	0	0.0%
Wyoming	374	2	0.5%
Total (only states reporting totals and subject data)	235,423	8,431	3.6%

State	Reading/language arts (elementary)		
	# Teachers in subject area	Teachers on waivers	
		Number	Percent
Alabama	22,754	11	0.0%
Alaska	94	1	1.1%
Arizona	23,175	389	1.7%
Arkansas	13,179	35	0.3%
California	139,114	5,062	3.6%
Colorado	23,189	479	2.1%
Connecticut	524	19	3.6%
D.C.	—	0	—
Delaware	2,571	8	0.3%
Florida	—	—	—
Georgia	—	—	—
Guam	—	—	—
Hawaii	62	4	6.5%
Idaho	—	67	—
Illinois	0	0	—
Indiana	23,268	12	0.1%
Iowa	2,313	0	0.0%
Kansas	13,550	0	0.0%
Kentucky	10,358	47	0.5%
Louisiana	4,101	182	4.4%
Maine	6,039	123	2.0%
Maryland	6,257	2	0.0%
Massachusetts	24,748	254	1.0%
Michigan	2,988	48	1.6%
Minnesota	19,502	355	1.8%
Mississippi	—	0	—
Missouri	22,087	269	1.2%
Montana	3,612	0	0.0%

State	Reading/language arts (elementary)		
	# Teachers in subject area	Teachers on waivers	
		Number	Percent
Nebraska	9,985	5	0.1%
Nevada	9,497	0	0.0%
New Hampshire	—	—	—
New Jersey	40,966	0	0.0%
New Mexico	7,559	72	1.0%
New York	6,863	0	0.0%
North Carolina	5,252	314	6.0%
North Dakota	0	0	—
Ohio	25,277	126	0.5%
Oklahoma	—	—	—
Oregon	—	—	—
Pennsylvania	44,594	1,126	2.5%
Puerto Rico	0	0	—
Rhode Island	377	1	0.3%
South Carolina	21,740	128	0.6%
South Dakota	5,818	0	0.0%
Tennessee	5,580	67	1.2%
Texas	32,871	1,976	6.0%
Utah	—	—	—
Vermont	—	25	—
Virgin Islands	25	9	36.0%
Virginia	1,765	0	0.0%
Washington	—	2	—
West Virginia	3,157	123	3.9%
Wisconsin	24,229	0	0.0%
Wyoming	3,075	0	0.0%
Total (only states reporting totals and subject data)	612,115	11,247	1.8%

Appendix A4. Number and percent of classroom teachers on waivers by subject area, by state: 2003-04 *continued*

State	Science (secondary)		
	# Teachers in subject area	Teachers on waivers	
		Number	Percent
Alabama	2,698	23	0.9%
Alaska	695	10	1.4%
Arizona	3,024	85	2.8%
Arkansas	1,317	43	3.3%
California	14,444	965	6.7%
Colorado	3,092	194	6.3%
Connecticut	3,819	138	3.6%
D.C.	—	0	—
Delaware	406	40	9.9%
Florida	6,821	52	0.8%
Georgia	—	—	—
Guam	106	16	15.1%
Hawaii	731	39	5.3%
Idaho	—	31	—
Illinois	7,420	91	1.2%
Indiana	6,611	73	1.1%
Iowa	1,970	0	0.0%
Kansas	3,954	1	0.0%
Kentucky	4,392	91	2.1%
Louisiana	4,223	508	12.0%
Maine	1,061	99	9.3%
Maryland	3,267	426	13.0%
Massachusetts	5,594	133	2.4%
Michigan	6,253	72	1.2%
Minnesota	8,065	169	2.1%
Mississippi	—	0	—
Missouri	3,781	93	2.5%
Montana	489	0	0.0%

State	Science (secondary)		
	# Teachers in subject area	Teachers on waivers	
		Number	Percent
Nebraska	1,448	1	0.1%
Nevada	1,370	0	0.0%
New Hampshire	763	8	1.0%
New Jersey	5,287	0	0.0%
New Mexico	1,139	15	1.3%
New York	13,599	340	2.5%
North Carolina	3,703	291	7.9%
North Dakota	217	11	5.1%
Ohio	28,156	250	0.9%
Oklahoma	—	6	—
Oregon	1,478	48	3.2%
Pennsylvania	7,557	142	1.9%
Puerto Rico	1,990	101	5.1%
Rhode Island	960	51	5.3%
South Carolina	3,788	267	7.0%
South Dakota	1,167	3	0.3%
Tennessee	4,217	79	1.9%
Texas	17,917	1,772	9.9%
Utah	1,280	364	28.4%
Vermont	—	6	—
Virgin Islands	73	61	83.6%
Virginia	5,997	1	0.0%
Washington	—	17	—
West Virginia	1,875	70	3.7%
Wisconsin	4,307	0	0.0%
Wyoming	348	1	0.3%
Total (only states reporting totals and subject data)	202,869	7,237	3.6%

State	Special education (all levels)		
	# Teachers in subject area	Teachers on waivers	
		Number	Percent
Alabama	5,714	15	0.3%
Alaska	1,110	23	2.1%
Arizona	5,538	363	6.6%
Arkansas	3,034	131	4.3%
California	26,627	6,051	22.7%
Colorado	4,815	393	8.2%
Connecticut	4,715	88	1.9%
D.C.	—	—	—
Delaware	1,646	180	10.9%
Florida	24,581	1,401	5.7%
Georgia	1,400	65	4.6%
Guam	82	14	17.1%
Hawaii	1,921	221	11.5%
Idaho	—	148	—
Illinois	21,847	356	1.6%
Indiana	10,974	454	4.1%
Iowa	5,568	0	0.0%
Kansas	5,131	2	0.0%
Kentucky	9,262	1,146	12.4%
Louisiana	7,912	1,845	23.3%
Maine	1,008	412	40.9%
Maryland	6,583	831	12.6%
Massachusetts	11,103	404	3.6%
Michigan	9,603	233	2.4%
Minnesota	8,146	357	4.4%
Mississippi	—	0	—
Missouri	10,496	348	3.3%
Montana	831	0	0.0%

State	Special education (all levels)		
	# Teachers in subject area	Teachers on waivers	
		Number	Percent
Nebraska	5,020	10	0.2%
Nevada	2,975	0	0.0%
New Hampshire	2,035	14	0.7%
New Jersey	11,541	1,302	11.3%
New Mexico	4,109	357	8.7%
New York	29,411	396	1.3%
North Carolina	15,985	1,293	8.1%
North Dakota	412	11	2.7%
Ohio	13,635	265	1.9%
Oklahoma	—	—	—
Oregon	637	117	18.4%
Pennsylvania	15,138	628	4.1%
Puerto Rico	3,161	122	3.9%
Rhode Island	2,450	101	4.1%
South Carolina	7,260	690	9.5%
South Dakota	1,283	6	0.5%
Tennessee	7,189	213	3.0%
Texas	34,276	2,705	7.9%
Utah	2,886	133	4.6%
Vermont	—	41	—
Virgin Islands	152	93	61.2%
Virginia	17,218	0	0.0%
Washington	8,045	65	0.8%
West Virginia	2,608	601	23.0%
Wisconsin	8,941	0	0.0%
Wyoming	508	3	0.6%
Total (only states reporting totals and subject data)	386,522	24,458	6.3%

— Data not available.

NOTE: For purposes of this table, the term "state" refers to the 50 states, the District of Columbia, Puerto Rico and outlying areas.

SOURCE: U.S. Department of Education, Higher Education Act Title II Reporting System, 2004.

Appendix A5. Types of emergency or temporary licenses issued, by state: 2004

State	Name of license	Duration (in years)	Times renewable
Alabama	Emergency Certificate	1	0
Alaska	Emergency Certificate	1	0
	Special Education Waiver	1	2
Arizona	Substitute Certificate	6	Unlimited
	Emergency Substitute Certificate	1	Unlimited
	Emergency Teaching Certificate	1	Unlimited
Arkansas	Provisional Credential (1282)	1	2
	Provisional Credential (1082)	1	0
	Waiver	1	0
	Provisional Credential (1083)	1	0
	Provisional Credential (1084)	1	0
	Provisional Credential (1085)	1	0
California	Pre-Intern Certificate	1	1
	Emergency Permit	1	4
	Credential Waiver—Variable	1	3
	Credential Waiver—Short term	0.5	0
Colorado	Authorization—Emergency	1	1
Connecticut	Temporary 90-Day Certificate	0.5	1
	Durational Shortage Area Permit	1	2
	Substitute Authorization-No BA	1	Not specified
	Long-Term Substitutes	1	0
Delaware	Emergency Certificate	3	0
Florida	Expert in Field; qualified but not certified	Not specified	0
Georgia	Permitted Personnel	1	0
	Nonrenewable Certificate	5	0
	International Exchange Certificates	3	0
	Intern Certificate	2	0
Guam	Emergency Certificate	1	3
Hawaii	Emergency Hire	1	3
Idaho	Misassignment	1	Unlimited
	American Board for the Certification of Teacher Excellence (ABCTE)	3	0
	Letter of Authorization	1	3
	Alternative Route Program	3	0
	Consultant Specialist	1	Unlimited

State	Name of license	Duration (in years)	Times renewable
Illinois	Provisional Vocational Certificate	2	Not specified
	Part-Time Provisional Vocational Certificate	2	Not specified
	Transitional Bilingual Certificate	6	1
	Substitute Certificate	4	0
	Visiting International Teaching Certificate	3	0
Indiana	Emergency Permit	1	2
Kansas	Visiting Scholar License	1	Unlimited
Kentucky	Emergency Certificate	1	Unlimited
	Conditional Certificate	1	0
	Part-Time Adjunct Instructor Certificate	1	0
Louisiana	Temporary Authority to Teach	1	2
	Temporary Employment Permit	1	2
	Out-of-Field Authorization to Teach	1	2
Maine	Conditional Certificate	1	2
	Waiver	1	4
	Transitional	1	4
	Targeted Needs	1	2
Maryland	Conditional Certificate	2	0
Massachusetts	Waiver	1	Unlimited
Michigan	The Emergency Permit	1	Not specified
	The Full-Year Permit	1	Not specified
	Annual Vocational Authorization	1	8
	Section 1233b Permit	1	Not specified
	Emergency/Temporary Special Education	1	Not specified
Minnesota	Nonlicensed Community Experts	1	0
	Temporary Limited License	1	2
	Personnel Variances	1	2
	Waiver	1	0
Mississippi	One Year Educator License	1	0
Missouri	Temporary Authorization Certificate of License to Teach	1	3
Montana	Emergency Authorization of Employment	1	Unlimited
Nebraska	Provisional Commitment Teaching Certificate	1	5
Nevada	Emergency Substitute Certificate	Not specified	0

State	Name of license	Duration (in years)	Times renewable
New Hampshire	Intern License	3	0
	Permission to Employ	1	0
New Jersey	Conditional Certificate to Teach a World Language	1	4
	Provisional Certificate	2	2
	County Substitute Certificate	3	Unlimited
	Emergency Certificate	1	2
New Mexico	Waiver of Assignment	1	2
	Substandard Licensure	1	2
New York	Modified Temporary License	1	0
North Carolina	Provisional Licenses	1	2
	Emergency Permits	1	0
	Alternative Entry Licenses	1	0
	Lateral Entry Licenses	2	1
	Temporary Permits	1	1
North Dakota	Interim/Emergency License	1	Not specified
Ohio	Temporary Teaching License	1	4
	Conditional Permit	1	0
	Temporary Teaching License—One year	1	0
	Provision for Teaching under House Bill 196	2	0
Oklahoma	Emergency Certificate	Not specified	0
Oregon	Transitional License	1	0
	Limited Teaching License	3	0
	Emergency Teaching License	3	0
	Restricted Transitional License	3	0
Pennsylvania	Emergency Permits	1	Not specified
Puerto Rico	Transitional Provisional Certificate (Certificado Transitorio Provisional)	1	5
Rhode Island	Emergency	1	Unlimited
South Carolina	Interim Certificate	1	0
	Temporary Certificate	1	2
	Special Subject Certificate	1	Unlimited
	Transitional Certificate	1	2
	Out of Field Permit	1	Unlimited

State	Name of license	Duration (in years)	Times renewable
Tennessee	Waiver	1	2
	Interim B License	1	2
	Permit	1	0
Texas	Probationary Certificate	1	2
	Nonrenewable Permit	1	0
	Emergency Permit	1	2
	Temporary Exemption Permit	1	0
	Temporary Teacher Certificate	2	0
	Temporary Classroom Assignment Permit	1	0
Utah	Letter of Authorization to Employ	1	3
Vermont	Emergency License	1	0
	Provisional Licenses	2	0
Virgin Islands	Emergency Certification	1	5
Virginia	Local Eligibility License	3	0
Washington	Emergency Certificate	1	0
	Conditional Certificate	2	Unlimited
West Virginia	Long-Term Substitute Waiver	1	0
	Out-of-Field Authorization	1	Not specified
	First Class Permit for Full-Time Employment	1	4
Wisconsin	Permit	1	Unlimited
	Emergency License	1	Unlimited
Wyoming	Temporary Employment Permit	1	3
	Collaboration	1	3
	Transitional Certificates	1	3

NOTE: For purposes of this table, the term "state" refers to the 50 states, Puerto Rico and outlying areas. The District of Columbia, Iowa and South Dakota do not issue emergency or temporary licenses and are not included in this table.

SOURCE: U.S. Department of Education, Higher Education Act Title II Reporting System, 2004.